

March 28, 2020

Vista Work Order No. 1903654

Ms. Delaney Peterson Anchor QEA, LLC 720 Olive Way, Suite 1900 Seattle, WA 98101

Dear Ms. Peterson,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 15, 2019 under your Project Name 'Gasco PDI'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 www.vista-analytical.com

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Vista Work Order No. 1903654 Case Narrative

Sample Condition on Receipt:

Eleven sediment samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The analyses were originally on hold. Authorization to log in the samples and proceed with the analyses was received on December 3, 2019.

The container for sample "PDI-075SC-B-06-08-191013" cracked while thawing. The sample did not appear to be compromised and was transferred into a new amber glass jar, as directed on December 16, 2019.

Analytical Notes:

EPA Method 1613B

The samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1613B using a ZB-5MS GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with each preparation batch. No analytes were detected over 1/2 of the quantitation limits in the Method Blanks. The OPR recoveries were within the method acceptance criteria.

As directed, a duplicate analysis of sample "PDI-075SC-B-04-06-191013" was performed. The "#" symbol indicates that 2,3,7,8-TCDD was not detected in the sample but was detected in the duplicate. An RPD could not be calculated. The RPDs for all other analytes were greater than 30%.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1903654-01	PDI-073SC-B-00-02-191013	EPA Method 1613B	13C-2,3,7,8-TCDD	Н	15.5
1903654-01	PDI-073SC-B-00-02-191013	EPA Method 1613B	13C-1,2,3,4,7,8-HxCDD	Н	29.0
1903654-01	PDI-073SC-B-00-02-191013	EPA Method 1613B	13C-1,2,3,4,6,7,8-HpCDD	Н	22.2
1903654-01	PDI-073SC-B-00-02-191013	EPA Method 1613B	13C-OCDD	Н	9.70
1903654-01	PDI-073SC-B-00-02-191013	EPA Method 1613B	13C-2,3,7,8-TCDF	Н	12.9
1903654-01	PDI-073SC-B-00-02-191013	EPA Method 1613B	37Cl-2,3,7,8-TCDD	Н	16.3

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903654-01	PDI-073SC-B-00-02-191013	13-Oct-19 10:37	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-02	PDI-073SC-B-02-04-191013	13-Oct-19 10:37	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-03	PDI-073SC-B-04-06-191013	13-Oct-19 10:37	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-04	PDI-073SC-B-06-08-191013	13-Oct-19 10:37	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-05	PDI-075SC-B-00-02-191013	13-Oct-19 07:35	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-06	PDI-075SC-B-02-04-191013	13-Oct-19 07:35	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-07	PDI-075SC-B-04-06-191013	Dup13-Oct-19 07:35	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-08	PDI-075SC-B-06-08-191013	13-Oct-19 07:35	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-09	PDI-076SC-B-00-02-191013	13-Oct-19 13:17	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-10	PDI-076SC-B-02-05-191013	13-Oct-19 13:18	15-Oct-19 08:51	Amber Glass, 120 mL
1903654-11	PDI-076SC-B-05-07-191013	13-Oct-19 13:19	15-Oct-19 08:51	Amber Glass, 120 mL

Vista Project: 1903654 Client Project: Gasco PDI

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ANALYTICAL RESULTS

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Sample ID: Method Blank								EPA Me	thod 1613B
Matrix: Solid Sample Size: 10.0 §		QC Batch: Date Extracted:	B0A0056 09-Jan-2020 8:08		1	ab Sample: B0A0056-BLK1 ate Analyzed: 02-Feb-20 12:44	Column: ZB-5M	S	
Analyte Conc.	(pg/g)	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0658			IS	13C-2,3,7,8-TCDD	94.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0645				13C-1,2,3,7,8-PeCDD	94.1	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0572				13C-1,2,3,4,7,8-HxCDD	82.0	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0574				13C-1,2,3,6,7,8-HxCDD	79.9	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0611				13C-1,2,3,7,8,9-HxCDD	81.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.0972				13C-1,2,3,4,6,7,8-HpCDD	80.2	23 - 140	
OCDD	0.246			J		13C-OCDD	66.7	17 - 157	
2,3,7,8-TCDF	ND	0.0472				13C-2,3,7,8-TCDF	85.1	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0439				13C-1,2,3,7,8-PeCDF	89.3	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0399				13C-2,3,4,7,8-PeCDF	89.6	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0407				13C-1,2,3,4,7,8-HxCDF	92.5	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0406				13C-1,2,3,6,7,8-HxCDF	89.6	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0442				13C-2,3,4,6,7,8-HxCDF	86.6	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0830			13C-1,2,3,7,8,9-HxCDF	86.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0667				13C-1,2,3,4,6,7,8-HpCDF	85.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0732				13C-1,2,3,4,7,8,9-HpCDF	81.2	26 - 138	
OCDF	ND	0.0935				13C-OCDF	68.4	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	96.8	35 - 197	
						Toxic Equivalent Quotient (TI	EQ) Data (pg/g dr	y wt)	
						TEQMinWHO2005Dioxin	0.000074		
TOTALS									
Total TCDD	ND	0.0658							
Total PeCDD	ND	0.0645							
Total HxCDD	ND	0.0611							
Total HpCDD	ND	0.0972							
Total TCDF	ND	0.0472							
Total PeCDF	ND	0.0439							
Total HxCDF	ND		0.0830						
Total HpCDF DL - Sample specife esti	ND	0.0732			LOLIV	CL- Lower control limit - upper control lin	•		

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: OPR								EPA Method 1613I
Matrix: Solid Sample Size: 10.0 g			30A0056)9-Jan-2020	8:08		Lab Sample: B0A0056-BS1 Date Analyzed: 02-Feb-20 11:11	Column: ZB-5MS	
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits		Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	20.1	20.0	100	67 - 158	IS	13C-2,3,7,8-TCDD	80.5	20 - 175
1,2,3,7,8-PeCDD	98.0	100	98.0	70 - 142		13C-1,2,3,7,8-PeCDD	78.0	21 - 227
1,2,3,4,7,8-HxCDD	104	100	104	70 - 164		13C-1,2,3,4,7,8-HxCDD	74.8	21 - 193
1,2,3,6,7,8-HxCDD	106	100	106	76 - 134		13C-1,2,3,6,7,8-HxCDD	73.9	25 - 163
1,2,3,7,8,9-HxCDD	106	100	106	64 - 162		13C-1,2,3,7,8,9-HxCDD	72.8	21 - 193
1,2,3,4,6,7,8-HpCDD	103	100	103	70 - 140		13C-1,2,3,4,6,7,8-HpCDD	69.2	26 - 166
OCDD	195	200	97.7	78 - 144		13C-OCDD	60.1	13 - 199
2,3,7,8-TCDF	21.5	20.0	107	75 - 158		13C-2,3,7,8-TCDF	77.5	22 - 152
1,2,3,7,8-PeCDF	104	100	104	80 - 134		13C-1,2,3,7,8-PeCDF	80.4	21 - 192
2,3,4,7,8-PeCDF	103	100	103	68 - 160		13C-2,3,4,7,8-PeCDF	82.5	13 - 328
1,2,3,4,7,8-HxCDF	108	100	108	72 - 134		13C-1,2,3,4,7,8-HxCDF	80.0	19 - 202
1,2,3,6,7,8-HxCDF	110	100	110	84 - 130		13C-1,2,3,6,7,8-HxCDF	79.6	21 - 159
2,3,4,6,7,8-HxCDF	109	100	109	70 - 156		13C-2,3,4,6,7,8-HxCDF	78.7	22 - 176
1,2,3,7,8,9-HxCDF	109	100	109	78 - 130		13C-1,2,3,7,8,9-HxCDF	78.3	17 - 205
1,2,3,4,6,7,8-HpCDF	109	100	109	82 - 122		13C-1,2,3,4,6,7,8-HpCDF	75.2	21 - 158
1,2,3,4,7,8,9-HpCDF	111	100	111	78 - 138		13C-1,2,3,4,7,8,9-HpCDF	73.1	20 - 186
OCDF	221	200	110	63 - 170		13C-OCDF	59.7	13 - 199
					CRS	37Cl-2,3,7,8-TCDD	90.0	31 - 191

LCL-UCL - Lower control limit - upper control limit

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Sample ID: Method	l Blank						EPA Me	ethod 1613B	
Matrix: Solid Sample Size: 10.0 g		QC Batch: B0C0209 Date Extracted: 17-Mar-2020	1 <			Lab Sample: B0C0209-BLK1 Date Analyzed: 18-Mar-20 21:02 Column: ZB-5MS			
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers	
2,3,7,8-TCDD	ND	0.0922		IS	13C-2,3,7,8-TCDD	80.0	25 - 164		
1,2,3,7,8-PeCDD	ND	0.0728			13C-1,2,3,7,8-PeCDD	84.4	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.0698			13C-1,2,3,4,7,8-HxCDD	71.6	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.0693			13C-1,2,3,6,7,8-HxCDD	70.3	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.0799			13C-1,2,3,7,8,9-HxCDD	72.0	32 - 141		
1,2,3,4,6,7,8-HpCDD	ND	0.130			13C-1,2,3,4,6,7,8-HpCDD	76.6	23 - 140		
OCDD	0.451		J		13C-OCDD	66.2	17 - 157		
2,3,7,8-TCDF	ND	0.0540			13C-2,3,7,8-TCDF	71.3	24 - 169		
1,2,3,7,8-PeCDF	ND	0.0445			13C-1,2,3,7,8-PeCDF	74.8	24 - 185		
2,3,4,7,8-PeCDF	ND	0.0429			13C-2,3,4,7,8-PeCDF	73.9	21 - 178		
1,2,3,4,7,8-HxCDF	ND	0.0414			13C-1,2,3,4,7,8-HxCDF	78.9	26 - 152		
1,2,3,6,7,8-HxCDF	ND	0.0401			13C-1,2,3,6,7,8-HxCDF	78.3	26 - 123		
2,3,4,6,7,8-HxCDF	ND	0.0398			13C-2,3,4,6,7,8-HxCDF	77.6	28 - 136		
1,2,3,7,8,9-HxCDF	ND	0.0574			13C-1,2,3,7,8,9-HxCDF	75.9	29 - 147		
1,2,3,4,6,7,8-HpCDF	ND	0.0613			13C-1,2,3,4,6,7,8-HpCDF	74.3	28 - 143		
1,2,3,4,7,8,9-HpCDF	ND	0.0772			13C-1,2,3,4,7,8,9-HpCDF	77.0	26 - 138		
OCDF	ND	0.144			13C-OCDF	68.1	17 - 157		
				CRS	37Cl-2,3,7,8-TCDD	77.3	35 - 197		
					Toxic Equivalent Quotient (T	EQ) Data (pg/g dı	y wt)		
					TEQMinWHO2005Dioxin	0.000135			
TOTALS									
Total TCDD	ND	0.0922			<u> </u>				
Total PeCDD	ND	0.0728							
Total HxCDD	ND	0.0799							
Total HpCDD	ND	0.130							
Total TCDF	ND	0.0540							
Total PeCDF	ND	0.0445							
Total HxCDF	ND	0.0574							
Total HpCDF	ND	0.0772			CI - Lower control limit - unner control li				

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: OPR								EPA Method 1613B
Matrix: Solid Sample Size: 10.0 g	`		30C0209 7-Mar-2020	0 10:39		Lab Sample: B0C0209-BS1 Date Analyzed: 18-Mar-20 17:52	Column: ZB-5MS	
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits		Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	17.2	20.0	85.8	67 - 158	IS	13C-2,3,7,8-TCDD	77.4	20 - 175
1,2,3,7,8-PeCDD	90.7	100	90.7	70 - 142		13C-1,2,3,7,8-PeCDD	89.0	21 - 227
1,2,3,4,7,8-HxCDD	92.8	100	92.8	70 - 164		13C-1,2,3,4,7,8-HxCDD	77.9	21 - 193
1,2,3,6,7,8-HxCDD	93.4	100	93.4	76 - 134		13C-1,2,3,6,7,8-HxCDD	76.4	25 - 163
1,2,3,7,8,9-HxCDD	94.7	100	94.7	64 - 162		13C-1,2,3,7,8,9-HxCDD	80.3	21 - 193
1,2,3,4,6,7,8-HpCDD	92.7	100	92.7	70 - 140		13C-1,2,3,4,6,7,8-HpCDD	86.3	26 - 166
OCDD	176	200	87.9	78 - 144		13C-OCDD	73.3	13 - 199
2,3,7,8-TCDF	18.0	20.0	90.2	75 - 158		13C-2,3,7,8-TCDF	65.8	22 - 152
1,2,3,7,8-PeCDF	92.7	100	92.7	80 - 134		13C-1,2,3,7,8-PeCDF	74.0	21 - 192
2,3,4,7,8-PeCDF	93.3	100	93.3	68 - 160		13C-2,3,4,7,8-PeCDF	75.0	13 - 328
1,2,3,4,7,8-HxCDF	92.9	100	92.9	72 - 134		13C-1,2,3,4,7,8-HxCDF	81.2	19 - 202
1,2,3,6,7,8-HxCDF	95.5	100	95.5	84 - 130		13C-1,2,3,6,7,8-HxCDF	82.2	21 - 159
2,3,4,6,7,8-HxCDF	93.3	100	93.3	70 - 156		13C-2,3,4,6,7,8-HxCDF	82.5	22 - 176
1,2,3,7,8,9-HxCDF	90.6	100	90.6	78 - 130		13C-1,2,3,7,8,9-HxCDF	84.4	17 - 205
1,2,3,4,6,7,8-HpCDF	89.8	100	89.8	82 - 122		13C-1,2,3,4,6,7,8-HpCDF	86.0	21 - 158
1,2,3,4,7,8,9-HpCDF	91.0	100	91.0	78 - 138		13C-1,2,3,4,7,8,9-HpCDF	86.4	20 - 186
OCDF	186	200	93.1	63 - 170		13C-OCDF	74.9	13 - 199
					CRS	37Cl-2,3,7,8-TCDD	71.6	31 - 191

LCL-UCL - Lower control limit - upper control limit

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2.3.7.8-PCDD	Sample ID: PDI-0738	SC-B-00-02-191013				EPA Me	ethod 1613B		
23,7,8-PCDD	Name: Anchor Project: Gasco P	PDI	Matrix: Sample Size:	15.3 g	Lab QC	5 Sample: 1903654-01 C Batch: B0A0056 te Analyzed: 03-Feb-20 22:	Date Extracted: :13 Column: ZB-5MS	09-Jan-2020	
1,2,3,7,8-PeCDD	Analyte Conc. (p	og/g)	DL EMP	C Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
1,2,3,4,7,8-HxCDD 27.9 D 13C-1,2,3,4,7,8-HxCDD 29.0 32-141 12,3,6,7,8-HxCDD 236 D 13C-1,2,3,6,7,8-HxCDD 32.1 28-130 12,2,3,7,8-HxCDD 22400 D 13C-1,2,3,6,7,8-HxCDD 39.1 32-141 12,2,3,8,9-HxCDD 137000 D,B 13C-0,CDD 9,70 17-157 12,2,3,7,8-PxCDF ND 43.0 D 13C-1,2,3,7,8-PxCDF 12.9 24-169 12,2,3,7,8-PxCDF 45.6 D 13C-1,2,3,7,8-PxCDF 25.7 24-185 23,4,7,8-PxCDF 45.6 D 13C-2,3,7,8-PxCDF 24.7 21-178 12,3,4,7,8-HxCDF 32.8 D 13C-1,2,3,6,7,8-HxCDF 32.8 D 13C-1,2,3,6,7,8-HxCDF 32.8 26-123 23,46,7,8-HxCDF 32.8 D 13C-1,2,3,6,7,8-HxCDF 32.8 26-123 23,46,7,8-HxCDF 26.8 D,J 13C-2,3,4,7,8-HxCDF 32.1 28-136 12,3,4,8,9-HxCDF 26.8 D,J 13C-1,2,3,4,7,8-HxCDF 34.2 29-147 12,3,4,7,8,9-HxCDF 56.4 D 13C-1,2,3,4,7,8,9-HxCDF 36.1 28-143 12,3,4,7,8,9-HxCDF 56.4 D 13C-1,2,3,4,7,8,9-HxCDF 28.9 26-138 12,3,4,7,8,9-HxCDF 56.4 D 13C-1,2,3,4,7,8,9-HxCDF 28.9 26-138 12,3,4,7,8,9-HxCDF 56.4 D 13C-1,2,3,4,7,8,9-HyCDF 28.9 26-138 12,3,4,7,8,9-HyCDF 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9	2,3,7,8-TCDD	ND	4.14	D	IS	13C-2,3,7,8-TCDD	15.5	25 - 164	D, H
1,2,3,6,7,8-HxCDD 236	1,2,3,7,8-PeCDD	5.20		D, J		13C-1,2,3,7,8-PeCDD	28.9	25 - 181	D
1,2,3,7,8,9-HxCDD	1,2,3,4,7,8-HxCDD	27.9		D		13C-1,2,3,4,7,8-HxCDD	29.0	32 - 141	D, H
1,2,3,4,6,7,8-HpCDD 22400 D 13C-1,2,3,4,6,7,8-HpCDD 22.2 23 - 140 140	1,2,3,6,7,8-HxCDD	236		D		13C-1,2,3,6,7,8-HxCDD	32.1	28 - 130	D
OCDD	1,2,3,7,8,9-HxCDD	67.7		D		13C-1,2,3,7,8,9-HxCDD	39.1	32 - 141	D
2,3,7,8-TCDF ND	1,2,3,4,6,7,8-HpCDD	22400		D		13C-1,2,3,4,6,7,8-HpCDD	22.2	23 - 140	D, H
1,2,3,7,8-PeCDF	OCDD	137000		D, B		13C-OCDD	9.70	17 - 157	D, H
2,3,4,7,8-PeCDF	2,3,7,8-TCDF	ND	43.0) D		13C-2,3,7,8-TCDF	12.9	24 - 169	D, H
1,2,3,4,7,8-HxCDF	1,2,3,7,8-PeCDF	68.1		D		13C-1,2,3,7,8-PeCDF	25.7	24 - 185	D
1,2,3,6,7,8-HxCDF 32.8 D 13C-1,2,3,6,7,8-HxCDF 32.8 26-123 2,3,4,6,7,8-HxCDF 12.2 D, J 13C-2,3,4,6,7,8-HxCDF 32.1 28-136 1,2,3,7,8,9-HxCDF 2.68 D, J 13C-1,2,3,7,8-HxCDF 34.2 29-147 1,2,3,4,6,7,8-HpCDF 643 D 13C-1,2,3,4,6,7,8-HpCDF 36.1 28-143 1,2,3,4,7,8,9-HpCDF 56.4 D 13C-1,2,3,4,7,8,9-HpCDF 28.9 26-138 CCDF 4400 D 13C-0CDF 18.6 17-157 CRS 37C1-2,3,7,8-TCDD 16.3 35-197 1 Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt) TOTALS Total TCDD 35.7 62.9 Total TCDD 4530 Total HxCDD 4530 Total HyCDD 55300 Total TCDF 67.7 111 Total PcCDF 212 220 Total HxCDF 644	2,3,4,7,8-PeCDF	45.6		D		13C-2,3,4,7,8-PeCDF	24.7	21 - 178	D
2,3,4,6,7,8-HxCDF 12.2 D, J 13C-2,3,4,6,7,8-HxCDF 32.1 28-136 1,2,3,7,8,9-HxCDF 2.68 D, J 13C-1,2,3,7,8,9-HxCDF 34.2 29-147 1,2,3,4,6,7,8-HpCDF 643 D 13C-1,2,3,4,6,7,8-HpCDF 36.1 28-143 1,2,3,4,7,8,9-HpCDF 56.4 D 13C-1,2,3,4,7,8,9-HpCDF 28.9 26-138 OCDF 4400 D 13C-0CDF 18.6 17-157 CRS 37C1-2,3,7,8-TCDD 16.3 35-197 I Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt) TOTALS Total TCDD 35.7 62.9 Total PCDD 121 146 Total HxCDD 4530 Total HyCDD 55300 Total PCDF 67.7 111 Total PCCDF 212 220 Total HxCDF 644	1,2,3,4,7,8-HxCDF	123		D		13C-1,2,3,4,7,8-HxCDF	33.5	26 - 152	D
1,2,3,7,8,9-HxCDF	1,2,3,6,7,8-HxCDF	32.8		D		13C-1,2,3,6,7,8-HxCDF	32.8	26 - 123	D
1,2,3,4,6,7,8-HpCDF	2,3,4,6,7,8-HxCDF	12.2		D, J		13C-2,3,4,6,7,8-HxCDF	32.1	28 - 136	D
1,2,3,4,7,8,9-HpCDF 56.4 D 13C-1,2,3,4,7,8,9-HpCDF 28.9 26 - 138 OCDF	1,2,3,7,8,9-HxCDF	2.68		D, J		13C-1,2,3,7,8,9-HxCDF	34.2	29 - 147	D
D 13C-OCDF 18.6 17 - 157	1,2,3,4,6,7,8-HpCDF	643		D		13C-1,2,3,4,6,7,8-HpCDF	36.1	28 - 143	D
CRS 37Cl-2,3,7,8-TCDD	1,2,3,4,7,8,9-HpCDF	56.4		D		13C-1,2,3,4,7,8,9-HpCDF	28.9	26 - 138	D
Toxic Equivalent (TEQ) Data (pg/g dry wt)	OCDF	4400		D		13C-OCDF	18.6	17 - 157	D
TOTALS Total TCDD 35.7 62.9 Total PeCDD 121 146 Total HxCDD 4530 Total HpCDD 55300 Total TCDF 67.7 111 Total PeCDF 212 220 Total HxCDF 644					CRS	37Cl-2,3,7,8-TCDD	16.3	35 - 197	D, H
TOTALS Total TCDD 35.7 62.9 Total PeCDD 121 146 Total HxCDD 4530 4530 Total HpCDD 55300 55300 Total TCDF 67.7 111 Total PeCDF 212 220 Total HxCDF 644						Toxic Equivalent Quotient (T	EQ) Data (pg/g dry w	/t)	
Total TCDD 35.7 62.9 Total PeCDD 121 146 Total HxCDD 4530 100 Total HpCDD 55300 111 Total TCDF 67.7 111 Total PeCDF 212 220 Total HxCDF 644						TEQMinWHO2005Dioxin	345		
Total PeCDD 121 146 Total HxCDD 4530 Total HpCDD 55300 Total TCDF 67.7 111 Total PeCDF 212 220 Total HxCDF 644 644	TOTALS								
Total HxCDD 4530 Total HpCDD 55300 Total TCDF 67.7 111 Total PeCDF 212 220 Total HxCDF 644 644	Total TCDD	35.7	62.9)					
Total HpCDD 55300 Total TCDF 67.7 111 Total PeCDF 212 220 Total HxCDF 644 644	Total PeCDD	121	146						
Total TCDF 67.7 111 Total PeCDF 212 220 Total HxCDF 644 644	Total HxCDD	4530							
Total PeCDF 212 220 Total HxCDF 644 644	Total HpCDD	55300							
Total HxCDF 644	Total TCDF								
	Total PeCDF		220						
Total HnCDF 3910 3930	Total HxCDF								
DL - Sample specific estimated detection limit LCL-UCL - Lower control limit - upper control limit	Total HpCDF	3910	3930	0					

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: PDI-073	3SC-B-02-04-191013						EPA Me	thod 1613B
Project: Gasco	or QEA, LLC D PDI ot-2019 10:37	Sample Data Matrix: Sediment Sample Size: 15.7 g % Solids: 64.2		Lab S QC I	•		09-Jan-2020	
Analyte Conc.	. (pg/g)	DL EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD		.432		IS	13C-2,3,7,8-TCDD	49.4	25 - 164	
1,2,3,7,8-PeCDD	ND	1.05			13C-1,2,3,7,8-PeCDD	55.4	25 - 181	
1,2,3,4,7,8-HxCDD	1.21		J		13C-1,2,3,4,7,8-HxCDD	58.2	32 - 141	
1,2,3,6,7,8-HxCDD	10.9				13C-1,2,3,6,7,8-HxCDD	49.4	28 - 130	
1,2,3,7,8,9-HxCDD	3.72				13C-1,2,3,7,8,9-HxCDD	53.7	32 - 141	
1,2,3,4,6,7,8-HpCDD	502				13C-1,2,3,4,6,7,8-HpCDD	63.2	23 - 140	
OCDD	3830		В		13C-OCDD	45.7	17 - 157	
2,3,7,8-TCDF	2.79				13C-2,3,7,8-TCDF	43.9	24 - 169	
1,2,3,7,8-PeCDF	2.86				13C-1,2,3,7,8-PeCDF	54.0	24 - 185	
2,3,4,7,8-PeCDF	2.08		J		13C-2,3,4,7,8-PeCDF	53.9	21 - 178	
1,2,3,4,7,8-HxCDF	6.32				13C-1,2,3,4,7,8-HxCDF	45.9	26 - 152	
1,2,3,6,7,8-HxCDF	2.74				13C-1,2,3,6,7,8-HxCDF	50.2	26 - 123	
2,3,4,6,7,8-HxCDF	3.96				13C-2,3,4,6,7,8-HxCDF	57.3	28 - 136	
1,2,3,7,8,9-HxCDF	0.210		J		13C-1,2,3,7,8,9-HxCDF	57.3	29 - 147	
1,2,3,4,6,7,8-HpCDF	78.5				13C-1,2,3,4,6,7,8-HpCDF	59.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	3.46				13C-1,2,3,4,7,8,9-HpCDF	56.1	26 - 138	
OCDF	273				13C-OCDF	42.9	17 - 157	
				CRS	37Cl-2,3,7,8-TCDD	56.0	35 - 197	
					Toxic Equivalent Quotien	nt (TEQ) Data (pg/g dry v	vt)	
					TEQMinWHO2005Dioxir	n 11.0		
TOTALS								
Total TCDD	3.17							
Total PeCDD	11.0	16.9						
Total HxCDD	141	143						
Total HpCDD	1130							
Total TCDF	54.5	56.2						
Total PeCDF	62.0	84.2						
Total HxCDF	96.0							
Total HpCDF	292							
DL - Sample specifc esti	imated detection limit			LCL-UCL	- Lower control limit - upper cont	trol limit		

EMPC - Estimated maximum possible concentration

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Client Data Name: Anchor Q Project: Gasco PD		Sample Da	ata		Lah				
Date Collected: 13-Oct-20	019 10:37	Sample S % Solids	e e		Lab QC I	oratory Data Sample: 1903654-03 Batch: B0A0056 e Analyzed: 02-Feb-20 15:52	Date Received: Date Extracted: Column: ZB-5MS	15-Oct-2019 09-Jan-2020	
Analyte Conc. (pg	/g)	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.237			IS	13C-2,3,7,8-TCDD	58.4	25 - 164	
, , , ,		0.623				13C-1,2,3,7,8-PeCDD	46.8	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.333				13C-1,2,3,4,7,8-HxCDD	34.1	32 - 141	
1,2,3,6,7,8-HxCDD	ND		0.735			13C-1,2,3,6,7,8-HxCDD	35.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.424			13C-1,2,3,7,8,9-HxCDD	32.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	29.7					13C-1,2,3,4,6,7,8-HpCDD	35.0	23 - 140	
OCDD 3	362			В		13C-OCDD	19.1	17 - 157	
2,3,7,8-TCDF	ND		0.265			13C-2,3,7,8-TCDF	55.4	24 - 169	
1,2,3,7,8-PeCDF	ND	0.585				13C-1,2,3,7,8-PeCDF	34.9	24 - 185	
2,3,4,7,8-PeCDF	ND	0.377				13C-2,3,4,7,8-PeCDF	42.7	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.287				13C-1,2,3,4,7,8-HxCDF	39.2	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.288				13C-1,2,3,6,7,8-HxCDF	36.1	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.382				13C-2,3,4,6,7,8-HxCDF	31.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.386				13C-1,2,3,7,8,9-HxCDF	33.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	5.24					13C-1,2,3,4,6,7,8-HpCDF	34.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.491				13C-1,2,3,4,7,8,9-HpCDF	32.7	26 - 138	
OCDF 1	19.0					13C-OCDF	17.8	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	59.9	35 - 197	
						Toxic Equivalent Quotient (TEQ)	Data (pg/g dry w	t)	
						TEQMinWHO2005Dioxin	0.464		
TOTALS									
		.237							
	ND		0.614						
	8.05		9.68						
	80.6								
	8.82		9.29						
	9.29		9.69						
	4.40		6.47						
Total HpCDF DL - Sample specifc estimate	19.3								

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: PDI-073SC-B-06-08-191013									EPA Me	thod 1613B
Project: Gasco	or QEA, LLC PDI t-2019 10:37	Sample Data Matrix: Sample Size: % Solids:	Sediment 15.5 g 64.9		Lab QC I	oratory Data Sample: Batch: e Analyzed :		Date Received: Date Extracted: Column: ZB-5MS Column: DB-225	15-Oct-2019 09-Jan-2020	
Analyte Conc.	(pg/g)	DL EMP	C	Qualifiers		Labeled Stand	lard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.38	30		IS	13C-2,3,7,8-T0	CDD	53.4	25 - 164	
1,2,3,7,8-PeCDD	1.16			J		13C-1,2,3,7,8-1	PeCDD	47.6	25 - 181	
1,2,3,4,7,8-HxCDD	0.256			J		13C-1,2,3,4,7,8	8-HxCDD	40.8	32 - 141	
1,2,3,6,7,8-HxCDD	1.58			J		13C-1,2,3,6,7,8	8-HxCDD	39.6	28 - 130	
1,2,3,7,8,9-HxCDD	0.811			J		13C-1,2,3,7,8,9	9-HxCDD	37.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	13.4					13C-1,2,3,4,6,7	7,8-HpCDD	39.6	23 - 140	
OCDD	295			В		13C-OCDD		24.7	17 - 157	
2,3,7,8-TCDF	0.719					13C-2,3,7,8-T0	CDF	50.4	24 - 169	
1,2,3,7,8-PeCDF	0.412			J		13C-1,2,3,7,8-	PeCDF	38.7	24 - 185	
2,3,4,7,8-PeCDF	2.52					13C-2,3,4,7,8-1	PeCDF	43.1	21 - 178	
1,2,3,4,7,8-HxCDF	1.76			J		13C-1,2,3,4,7,8	8-HxCDF	43.6	26 - 152	
1,2,3,6,7,8-HxCDF	1.34			J		13C-1,2,3,6,7,8	8-HxCDF	39.1	26 - 123	
2,3,4,6,7,8-HxCDF	2.94					13C-2,3,4,6,7,8	8-HxCDF	32.7	28 - 136	
1,2,3,7,8,9-HxCDF	0.334			J		13C-1,2,3,7,8,9	9-HxCDF	36.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	4.54					13C-1,2,3,4,6,7	7,8-HpCDF	38.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.542			J		13C-1,2,3,4,7,8	8,9-HpCDF	36.5	26 - 138	
OCDF	4.52			J		13C-OCDF		24.2	17 - 157	
					CRS	37Cl-2,3,7,8-T	CDD	55.6	35 - 197	
						Toxic Equivale	ent Quotient (TE	Q) Data (pg/g dry w	t)	
						TEQMinWHO:	2005Dioxin	3.18		
TOTALS										
Total TCDD	3.99	4.7	0							
Total PeCDD	10.1	11.5	9							
Total HxCDD	15.9									
Total HpCDD	33.6									
Total TCDF	35.5	35.								
Total PeCDF	59.1	74.	7							
Total HxCDF	36.3									
Total HpCDF DL - Sample specific estin	11.1						nit - upper control limit			

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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	SC-B-00-02-191013				EPA Me	thod 1613B			
Project: Gasco P	QEA, LLC PDI 2019 7:35	Sample Data Matrix: Sample Size: % Solids:	Sediment 20.1 g 49.8		Lab QC	-	Date Received: Date Extracted: 29 Column: ZB-5MS 05 Column: DB-225		
Analyte Conc. (p	pg/g)	DL EMP	C Q i	ualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	2.19				IS	13C-2,3,7,8-TCDD	61.3	25 - 164	
1,2,3,7,8-PeCDD	4.95					13C-1,2,3,7,8-PeCDD	88.1	25 - 181	
1,2,3,4,7,8-HxCDD	7.43					13C-1,2,3,4,7,8-HxCDD	81.7	32 - 141	
1,2,3,6,7,8-HxCDD	35.1					13C-1,2,3,6,7,8-HxCDD	80.2	28 - 130	
1,2,3,7,8,9-HxCDD	17.6					13C-1,2,3,7,8,9-HxCDD	87.1	32 - 141	
1,2,3,4,6,7,8-HpCDD	1060					13C-1,2,3,4,6,7,8-HpCDD	109	23 - 140	
OCDD	16600			D, B		13C-OCDD	64.8	17 - 157	D
2,3,7,8-TCDF	419					13C-2,3,7,8-TCDF	56.4	24 - 169	
1,2,3,7,8-PeCDF	747					13C-1,2,3,7,8-PeCDF	82.8	24 - 185	
2,3,4,7,8-PeCDF	370					13C-2,3,4,7,8-PeCDF	84.9	21 - 178	
1,2,3,4,7,8-HxCDF	1160					13C-1,2,3,4,7,8-HxCDF	87.1	26 - 152	
1,2,3,6,7,8-HxCDF	323					13C-1,2,3,6,7,8-HxCDF	79.8	26 - 123	
2,3,4,6,7,8-HxCDF	83.9					13C-2,3,4,6,7,8-HxCDF	82.4	28 - 136	
1,2,3,7,8,9-HxCDF	136					13C-1,2,3,7,8,9-HxCDF	88.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	647					13C-1,2,3,4,6,7,8-HpCDF	89.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	201					13C-1,2,3,4,7,8,9-HpCDF	101	26 - 138	
OCDF	1610					13C-OCDF	91.0	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	56.3	35 - 197	
						Toxic Equivalent Quotient (TE	CQ) Data (pg/g dry w	rt)	
						TEQMinWHO2005Dioxin	383		
TOTALS									
Total TCDD	21.4								
Total PeCDD	42.8	43.0)						
Total HxCDD	284								
Total HpCDD	2290								
Total TCDF	1350			P					
Total PeCDF	2080	2110		P					
Total HxCDF	2180	2200)						
Total HpCDF DL - Sample specifc estima	1940					L- Lower control limit - upper control lim			

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: PDI-075	5SC-B-02-04-191013						EPA Me	thod 1613B
Project: Gasco	or QEA, LLC O PDI et-2019 7:35	Sample Data Matrix: Sample Size: % Solids:	Sediment 17.8 g 56.6	Lab QC	-	Date Received: Date Extracted: Column: ZB-5MS Column: DB-225	15-Oct-2019 09-Jan-2020	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.643		IS	13C-2,3,7,8-TCDD	84.2	25 - 164	
1,2,3,7,8-PeCDD	1.31		J		13C-1,2,3,7,8-PeCDD	79.2	25 - 181	
1,2,3,4,7,8-HxCDD	1.56		J		13C-1,2,3,4,7,8-HxCDD	69.5	32 - 141	
1,2,3,6,7,8-HxCDD	8.89				13C-1,2,3,6,7,8-HxCDD	68.0	28 - 130	
1,2,3,7,8,9-HxCDD	3.64				13C-1,2,3,7,8,9-HxCDD	71.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	330				13C-1,2,3,4,6,7,8-HpCDD	68.5	23 - 140	
OCDD	5090		В		13C-OCDD	40.8	17 - 157	
2,3,7,8-TCDF	135				13C-2,3,7,8-TCDF	82.0	24 - 169	
1,2,3,7,8-PeCDF	285				13C-1,2,3,7,8-PeCDF	83.1	24 - 185	
2,3,4,7,8-PeCDF	123				13C-2,3,4,7,8-PeCDF	75.2	21 - 178	
1,2,3,4,7,8-HxCDF	506				13C-1,2,3,4,7,8-HxCDF	77.1	26 - 152	
1,2,3,6,7,8-HxCDF	128				13C-1,2,3,6,7,8-HxCDF	68.9	26 - 123	
2,3,4,6,7,8-HxCDF	31.2				13C-2,3,4,6,7,8-HxCDF	65.3	28 - 136	
1,2,3,7,8,9-HxCDF	21.9				13C-1,2,3,7,8,9-HxCDF	75.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	178				13C-1,2,3,4,6,7,8-HpCDF	69.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	63.8				13C-1,2,3,4,7,8,9-HpCDF	69.4	26 - 138	
OCDF	305				13C-OCDF	48.3	17 - 157	
				CRS	37Cl-2,3,7,8-TCDD	85.9	35 - 197	
					Toxic Equivalent Quotient (TI	EQ) Data (pg/g dry w	t)	
					TEQMinWHO2005Dioxin	138		
TOTALS								
Total TCDD	10.0	10.6						
Total PeCDD	15.4							
Total HxCDD	92.9							
Total HpCDD	871							
Total TCDF	392	430						
Total PeCDF	748							
Total HxCDF	873							
Total HpCDF	461							
DL - Sample specifc esti	mated detection limit			LCL-UC	L- Lower control limit - upper control lim	it		

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: PDI-075	SC-B-04-06-191013								EPA Me	thod 1613B
Project: Gasco	r QEA, LLC PDI -2019 7:35	Sample Data Matrix: Sample Size: % Solids:	Sediment 16.7 g 60.4		Lab QC	ooratory Data Sample: Batch: e Analyzed:		Date Received: Date Extracted: Column: ZB-5MS Column: DB-225		
Analyte Conc. ((pg/g)	DL EMP		lifiers		Labeled Stand	lard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.46	9		IS	13C-2,3,7,8-TC	CDD	79.4	25 - 164	
1,2,3,7,8-PeCDD	0.993			J		13C-1,2,3,7,8-1	PeCDD	74.6	25 - 181	
1,2,3,4,7,8-HxCDD	1.84			J		13C-1,2,3,4,7,8	8-HxCDD	65.9	32 - 141	
1,2,3,6,7,8-HxCDD	16.1					13C-1,2,3,6,7,8	8-HxCDD	68.1	28 - 130	
1,2,3,7,8,9-HxCDD	5.26					13C-1,2,3,7,8,9	9-HxCDD	70.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	1060					13C-1,2,3,4,6,7	7,8-HpCDD	71.0	23 - 140	
OCDD	6680		Γ), B		13C-OCDD		34.1	17 - 157	D
2,3,7,8-TCDF	8.83					13C-2,3,7,8-TC	CDF	80.3	24 - 169	
1,2,3,7,8-PeCDF	10.5					13C-1,2,3,7,8-1	PeCDF	73.1	24 - 185	
2,3,4,7,8-PeCDF	4.49					13C-2,3,4,7,8-1	PeCDF	72.0	21 - 178	
1,2,3,4,7,8-HxCDF	13.6					13C-1,2,3,4,7,8	8-HxCDF	73.1	26 - 152	
1,2,3,6,7,8-HxCDF	3.41					13C-1,2,3,6,7,8	8-HxCDF	66.3	26 - 123	
2,3,4,6,7,8-HxCDF	1.61			J		13C-2,3,4,6,7,8	8-HxCDF	67.5	28 - 136	
1,2,3,7,8,9-HxCDF	0.835			J		13C-1,2,3,7,8,9	9-HxCDF	73.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	42.4					13C-1,2,3,4,6,7	7,8-HpCDF	70.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	4.77					13C-1,2,3,4,7,8	8,9-HpCDF	71.7	26 - 138	
OCDF	260					13C-OCDF		58.2	17 - 157	
					CRS	37Cl-2,3,7,8-T	CDD	83.4	35 - 197	
						Toxic Equivale	ent Quotient (TE	Q) Data (pg/g dry w	rt)	
						TEQMinWHO	2005Dioxin	21.0		
TOTALS										
Total TCDD	12.8	13.3								
Total PeCDD	27.2									
Total HxCDD	246									
Total HpCDD	2460									
Total TCDF	34.0	35.4								
Total PeCDF	42.5	44.2								
Total HxCDF	55.4									
Total HpCDF DL - Sample specifc estin	230						nit - upper control limi			

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: Du	plicate							EPA Met	hod 1613B
Source Client ID: Source LabNumber: Matrix: Sample Size:	PDI-075SC-B-04-06-191013 1903654-07 Solid 16.6 g		QC Batch: Date Extracted:	B0A0056 09-Jan-2020 8:08	Lab Sar Date Ar	•			
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	1.53				IS	13C-2,3,7,8-TCDD	60.9	25 - 164	
1,2,3,7,8-PeCDD	3.71					13C-1,2,3,7,8-PeCDD	67.4	25 - 181	
1,2,3,4,7,8-HxCDD	9.54					13C-1,2,3,4,7,8-HxCDD	65.0	32 - 141	
1,2,3,6,7,8-HxCDD	82.1					13C-1,2,3,6,7,8-HxCDD	60.7	28 - 130	
1,2,3,7,8,9-HxCDD	25.3					13C-1,2,3,7,8,9-HxCDD	64.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	5220			D		13C-1,2,3,4,6,7,8-HpCDD	48.6	23 - 140	D
OCDD	35000			D, B		13C-OCDD	30.4	17 - 157	D
2,3,7,8-TCDF	64.5					13C-2,3,7,8-TCDF	55.0	24 - 169	
1,2,3,7,8-PeCDF	110					13C-1,2,3,7,8-PeCDF	61.6	24 - 185	
2,3,4,7,8-PeCDF	41.3					13C-2,3,4,7,8-PeCDF	61.5	21 - 178	
1,2,3,4,7,8-HxCDF	164					13C-1,2,3,4,7,8-HxCDF	67.2	26 - 152	
1,2,3,6,7,8-HxCDF	45.3					13C-1,2,3,6,7,8-HxCDF	61.2	26 - 123	
2,3,4,6,7,8-HxCDF	17.0					13C-2,3,4,6,7,8-HxCDF	62.6	28 - 136	
1,2,3,7,8,9-HxCDF	4.30					13C-1,2,3,7,8,9-HxCDF	65.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	259					13C-1,2,3,4,6,7,8-HpCDF	65.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	39.8					13C-1,2,3,4,7,8,9-HpCDF	68.5	26 - 138	
OCDF	1340					13C-OCDF	51.4	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	61.4	35 - 197	
						Toxic Equivalent Quotient (TE	Q) Data (pg/g dr	y wt)	
						TEQMinWHO2005Dioxin	128		
TOTALS									
Total TCDD	41.6		41.8						
Total PeCDD	98.1								
Total HxCDD	1240								
Total HpCDD	12400								
Total TCDF	209								
Total PeCDF	406								
Total HxCDF	477		478						
Total HpCDF	1320					LCL UCL Lower control limit			

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight.

The sample size is reported in wet weight.

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Sample ID: EPA Method 1613B Duplicate

Source Client ID: PDI-075SC-B-04-06-191013

Source LabNumber: 1903654-07 Matrix: Solid

Duplicate Lab Sample: B0A0056-DUP1

Analyte	Dup Conc. (pg/g)	Source Conc.	RPD	RPD Limits		Labeled Standard	Dup %R	Source %R	LCL-UCL
2,3,7,8-TCDD	1.53	ND	#	25	IS	13C-2,3,7,8-TCDD	60.9	79.4	25 - 164
1,2,3,7,8-PeCDD	3.71	0.993	115	25		13C-1,2,3,7,8-PeCDD	67.4	74.6	25 - 181
1,2,3,4,7,8-HxCDD	9.54	1.84	135	25		13C-1,2,3,4,7,8-HxCDD	65.0	65.9	32 - 141
1,2,3,6,7,8-HxCDD	82.1	16.1	134	25		13C-1,2,3,6,7,8-HxCDD	60.7	68.1	28 - 130
1,2,3,7,8,9-HxCDD	25.3	5.26	131	25		13C-1,2,3,7,8,9-HxCDD	64.3	70.2	32 - 141
1,2,3,4,6,7,8-HpCDD	5220	1060	133	25		13C-1,2,3,4,6,7,8-HpCDD	48.6	71.0	23 - 140
OCDD	35000	6680	136	25		13C-OCDD	30.4	34.1	17 - 157
2,3,7,8-TCDF	64.5	8.83	152	25		13C-2,3,7,8-TCDF	55.0	80.3	24 - 169
1,2,3,7,8-PeCDF	110	10.5	165	25		13C-1,2,3,7,8-PeCDF	61.6	73.1	24 - 185
2,3,4,7,8-PeCDF	41.3	4.49	161	25		13C-2,3,4,7,8-PeCDF	61.5	72.0	21 - 178
1,2,3,4,7,8-HxCDF	164	13.6	169	25		13C-1,2,3,4,7,8-HxCDF	67.2	73.1	26 - 152
1,2,3,6,7,8-HxCDF	45.3	3.41	172	25		13C-1,2,3,6,7,8-HxCDF	61.2	66.3	26 - 123
2,3,4,6,7,8-HxCDF	17.0	1.61	166	25		13C-2,3,4,6,7,8-HxCDF	62.6	67.5	28 - 136
1,2,3,7,8,9-HxCDF	4.30	0.835	135	25		13C-1,2,3,7,8,9-HxCDF	65.2	73.0	29 - 147
1,2,3,4,6,7,8-HpCDF	259	42.4	144	25		13C-1,2,3,4,6,7,8-HpCDF	65.4	70.1	28 - 143
1,2,3,4,7,8,9-HpCDF	39.8	4.77	157	25		13C-1,2,3,4,7,8,9-HpCDF	68.5	71.7	26 - 138
OCDF	1340	260	135	25		13C-OCDF	51.4	58.2	17 - 157
					CRS	37Cl-2,3,7,8-TCDD	61.4	83.4	35 - 197

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight.

reported to the MDL

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The sample size is reported in wet weight.Results

Client Data Name: Anchor QEA Project: Gasco PDI Date Collected: 13-Oct-2019 Analyte Conc. (pg/g) 2,3,7,8-TCDD 1.97 1,2,3,7,8-PeCDD 4.71 1,2,3,4,7,8-HxCDD 4.91 1,2,3,6,7,8-HxCDD 37.5 1,2,3,7,8,9-HxCDD 15.5	7:35 I 7 1 1 5 5 0	Sample Data Matrix: Sample Size: % Solids: DL EMPO	Sediment 16.5 g 61.9	Qualifiers	Lab QC I	24-Mar-20 14:36 Labeled Standard 13C-2,3,7,8-TCDD	Date Received: Date Extracted: Column: ZB-5MS Column: DB-225 %R 58.7	15-Oct-2019 17-Mar-2020 3 LCL-UCL 25 - 164	
2,3,7,8-TCDD 1.97 1,2,3,7,8-PeCDD 4.71 1,2,3,4,7,8-HxCDD 4.91 1,2,3,6,7,8-HxCDD 37.5	7 1 1 5 5 0	DL EMP(C	Qualifiers	IS	13C-2,3,7,8-TCDD			Qualifiers
1,2,3,7,8-PeCDD 4.71 1,2,3,4,7,8-HxCDD 4.91 1,2,3,6,7,8-HxCDD 37.5	1 1 5 5 0				IS		58.7	25 - 164	
1,2,3,4,7,8-HxCDD 4.91 1,2,3,6,7,8-HxCDD 37.5	1 5 5 0								
1,2,3,6,7,8-HxCDD 37.5	5 5 0					13C-1,2,3,7,8-PeCDD	90.2	25 - 181	
, , , , ,	5					13C-1,2,3,4,7,8-HxCDD	82.1	32 - 141	
1,2,3,7,8,9-HxCDD 15.5	0					13C-1,2,3,6,7,8-HxCDD	76.9	28 - 130	
						13C-1,2,3,7,8,9-HxCDD	82.4	32 - 141	
1,2,3,4,6,7,8-HpCDD 234						13C-1,2,3,4,6,7,8-HpCDD	97.3	23 - 140	
OCDD 130	000			D, B		13C-OCDD	43.2	17 - 157	D
2,3,7,8-TCDF 14.1	1					13C-2,3,7,8-TCDF	55.3	24 - 169	
1,2,3,7,8-PeCDF 17.9	9					13C-1,2,3,7,8-PeCDF	79.4	24 - 185	
2,3,4,7,8-PeCDF 18.0	0					13C-2,3,4,7,8-PeCDF	86.9	21 - 178	
1,2,3,4,7,8-HxCDF 27.9	9					13C-1,2,3,4,7,8-HxCDF	82.3	26 - 152	
1,2,3,6,7,8-HxCDF 11.7	7					13C-1,2,3,6,7,8-HxCDF	77.0	26 - 123	
2,3,4,6,7,8-HxCDF 9.04	4					13C-2,3,4,6,7,8-HxCDF	75.8	28 - 136	
1,2,3,7,8,9-HxCDF 3.61	1					13C-1,2,3,7,8,9-HxCDF	83.3	29 - 147	
1,2,3,4,6,7,8-HpCDF 172						13C-1,2,3,4,6,7,8-HpCDF	82.5	28 - 143	
1,2,3,4,7,8,9-HpCDF 8.64	4					13C-1,2,3,4,7,8,9-HpCDF	89.1	26 - 138	
OCDF 409						13C-OCDF	64.4	17 - 157	
					CRS	37C1-2,3,7,8-TCDD	56.3	35 - 197	
						Toxic Equivalent Quotient (TEC	Q) Data (pg/g dry w	/ t)	
						TEQMinWHO2005Dioxin	54.3		
TOTALS									
Total TCDD 46.4	4								
Total PeCDD 102									
Total HxCDD 628									
Total HpCDD 493									
Total TCDF 95.5		100		P					
Total PeCDF 229				P					
Total HxCDF 222									
Total HpCDF 583 DL - Sample specifc estimated de									

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: PDI-076	6SC-B-00-02-191013								EPA Me	thod 1613B
Project: Gasco	or QEA, LLC PDI t-2019 13:17	Sample Data Matrix: Sample Size: % Solids:	Sediment 18.3 g 54.7		Lab QC I	oratory Data Sample: Batch: e Analyzed :		Date Received: Date Extracted: Column: ZB-5MS Column: DB-225	15-Oct-2019 09-Jan-2020	
Analyte Conc.	(pg/g)	DL EMP	C	Qualifiers		Labeled Stand	lard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.27	71		IS	13C-2,3,7,8-TC	CDD	101	25 - 164	
1,2,3,7,8-PeCDD	0.233			J		13C-1,2,3,7,8-l	PeCDD	106	25 - 181	
1,2,3,4,7,8-HxCDD	0.294			J		13C-1,2,3,4,7,8	8-HxCDD	91.2	32 - 141	
1,2,3,6,7,8-HxCDD	1.50			J		13C-1,2,3,6,7,8	8-HxCDD	90.8	28 - 130	
1,2,3,7,8,9-HxCDD	0.660			J		13C-1,2,3,7,8,9	9-HxCDD	96.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	41.7					13C-1,2,3,4,6,7	7,8-HpCDD	105	23 - 140	
OCDD	390			В		13C-OCDD		94.2	17 - 157	
2,3,7,8-TCDF	6.60					13C-2,3,7,8-TC	CDF	96.4	24 - 169	
1,2,3,7,8-PeCDF	8.61					13C-1,2,3,7,8-1	PeCDF	102	24 - 185	
2,3,4,7,8-PeCDF	3.77					13C-2,3,4,7,8-1	PeCDF	98.0	21 - 178	
1,2,3,4,7,8-HxCDF	15.0					13C-1,2,3,4,7,8	8-HxCDF	101	26 - 152	
1,2,3,6,7,8-HxCDF	3.68					13C-1,2,3,6,7,8	8-HxCDF	92.2	26 - 123	
2,3,4,6,7,8-HxCDF	1.19			J		13C-2,3,4,6,7,8	8-HxCDF	97.0	28 - 136	
1,2,3,7,8,9-HxCDF	0.489			J		13C-1,2,3,7,8,9	9-HxCDF	108	29 - 147	
1,2,3,4,6,7,8-HpCDF	8.43					13C-1,2,3,4,6,7	7,8-HpCDF	100	28 - 143	
1,2,3,4,7,8,9-HpCDF	2.27			J		13C-1,2,3,4,7,8	8,9-HpCDF	105	26 - 138	
OCDF	18.5					13C-OCDF		93.0	17 - 157	
					CRS	37Cl-2,3,7,8-T	CDD	103	35 - 197	
						Toxic Equivale	ent Quotient (TE	Q) Data (pg/g dry w	t)	
						TEQMinWHO	2005Dioxin	5.21		
TOTALS										
Total TCDD	1.89	2.1	6							
Total PeCDD	2.47									
Total HxCDD	14.3									
Total HpCDD	96.2									
Total TCDF	28.3	29.	9							
Total PeCDF	27.3									
Total HxCDF	29.5	29.	6							
Total HpCDF DL - Sample specife estir	23.1						nit - upper control limit			

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Client Data Name: Anchor Q Project: Gasco PD	PEA, LLC	Sample Data								
Date Collected: 13-Oct-20		Matrix: Sample Size: % Solids:	Sediment 17.5 g 57.8		Lab QC I	oratory Data Sample: Batch: e Analyzed :		Date Received: Date Extracted: Column: ZB-5MS Column: DB-225	15-Oct-2019 09-Jan-2020	
Analyte Conc. (pg/	/g) I	DL EMPO	C	Qualifiers		Labeled Stand	ard	%R	LCL-UCL	Qualifiers
7-7-7-	0.542				IS	13C-2,3,7,8-TC	CDD	93.9	25 - 164	
7 7-7-7-	0.788			J		13C-1,2,3,7,8-1	PeCDD	95.4	25 - 181	
	0.697			J		13C-1,2,3,4,7,8	8-HxCDD	88.3	32 - 141	
	4.44					13C-1,2,3,6,7,8	8-HxCDD	87.0	28 - 130	
1,2,3,7,8,9-HxCDD 1	1.99			J		13C-1,2,3,7,8,9	9-HxCDD	89.0	32 - 141	
1,2,3,4,6,7,8-HpCDD 8	88.1					13C-1,2,3,4,6,7	7,8-HpCDD	94.2	23 - 140	
OCDD 9	969			В		13C-OCDD		82.4	17 - 157	
2,3,7,8-TCDF 3	36.6					13C-2,3,7,8-TC	CDF	88.5	24 - 169	
1,2,3,7,8-PeCDF 5	51.1					13C-1,2,3,7,8-1	PeCDF	92.7	24 - 185	
2,3,4,7,8-PeCDF 2	22.8					13C-2,3,4,7,8-1	PeCDF	92.1	21 - 178	
1,2,3,4,7,8-HxCDF	91.0					13C-1,2,3,4,7,8	8-HxCDF	97.3	26 - 152	
1,2,3,6,7,8-HxCDF 2	25.3					13C-1,2,3,6,7,8	8-HxCDF	93.6	26 - 123	
2,3,4,6,7,8-HxCDF 6	6.14					13C-2,3,4,6,7,8	8-HxCDF	92.4	28 - 136	
1,2,3,7,8,9-HxCDF 2	2.06			J		13C-1,2,3,7,8,9	9-HxCDF	95.0	29 - 147	
1,2,3,4,6,7,8-HpCDF 5	53.6					13C-1,2,3,4,6,7	7,8-HpCDF	93.1	28 - 143	
1,2,3,4,7,8,9-HpCDF 1	18.7					13C-1,2,3,4,7,8	3,9-HpCDF	95.0	26 - 138	
_	109					13C-OCDF	•	84.0	17 - 157	
					CRS	37Cl-2,3,7,8-T	CDD	97.4	35 - 197	
						Toxic Equivale	ent Quotient (TEQ) Data (pg/g dry w	t)	
						TEQMinWHO2	2005Dioxin	28.5		
TOTALS										
Total TCDD 4	4.41	4.56)				<u> </u>			
Total PeCDD 6	6.58									
Total HxCDD 3	38.1									
Total HpCDD 1	192									
Total TCDF 1	115	119								
	137	140								
Total HxCDF 1	166									
Total HpCDF 1	127									

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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Sample ID: PDI-07	6SC-B-05-07-191013							EPA Me	ethod 1613B
Project: Gasco	or QEA, LLC o PDI ct-2019 13:19	Sample Data Matrix: Sample Size: % Solids:	Sediment 16.3 g 61.3		Lab QC	-	Date Received: Date Extracted: Column: ZB-5M: Column: DB-225	17-Mar-2020	
Analyte Conc.	(pg/g)	DL EMI	C Qu	alifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	2.25				IS	13C-2,3,7,8-TCDD	74.9	25 - 164	
1,2,3,7,8-PeCDD	3.39					13C-1,2,3,7,8-PeCDD	88.3	25 - 181	
1,2,3,4,7,8-HxCDD	3.86					13C-1,2,3,4,7,8-HxCDD	79.8	32 - 141	
1,2,3,6,7,8-HxCDD	29.4					13C-1,2,3,6,7,8-HxCDD	71.6	28 - 130	
1,2,3,7,8,9-HxCDD	10.7					13C-1,2,3,7,8,9-HxCDD	86.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	1320					13C-1,2,3,4,6,7,8-HpCDD	108	23 - 140	
OCDD	13800			D, B		13C-OCDD	73.8	17 - 157	D
2,3,7,8-TCDF	167					13C-2,3,7,8-TCDF	71.2	24 - 169	
1,2,3,7,8-PeCDF	265					13C-1,2,3,7,8-PeCDF	82.8	24 - 185	
2,3,4,7,8-PeCDF	118					13C-2,3,4,7,8-PeCDF	83.1	21 - 178	
1,2,3,4,7,8-HxCDF	429					13C-1,2,3,4,7,8-HxCDF	79.9	26 - 152	
1,2,3,6,7,8-HxCDF	112					13C-1,2,3,6,7,8-HxCDF	74.8	26 - 123	
2,3,4,6,7,8-HxCDF	29.5					13C-2,3,4,6,7,8-HxCDF	77.7	28 - 136	
1,2,3,7,8,9-HxCDF	43.1					13C-1,2,3,7,8,9-HxCDF	86.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	299					13C-1,2,3,4,6,7,8-HpCDF	89.3	28 - 143	
1,2,3,4,7,8,9-HpCDF	83.9					13C-1,2,3,4,7,8,9-HpCDF	101	26 - 138	
OCDF	818					13C-OCDF	94.6	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	70.7	35 - 197	
						Toxic Equivalent Quotient (TE	Q) Data (pg/g dry v	vt)	
						TEQMinWHO2005Dioxin	153		
TOTALS									
Total TCDD	22.7								
Total PeCDD	34.2	34.	4						
Total HxCDD	300								
Total HpCDD	2880								
Total TCDF	617	64		P					
Total PeCDF	763	78	4	P					
Total HxCDF	846								
Total HpCDF	931								
DL - Sample specifc esti	imated detection limit				LCL-UC	L- Lower control limit - upper control limi	t		

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

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DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank

Conc. Concentration

CRS Cleanup Recovery Standard

D Dilution

DL Detection limit

E The associated compound concentration exceeded the calibration range of the

instrument

H Recovery and/or RPD was outside laboratory acceptance limits

I Chemical Interference

IS Internal Standard

J The amount detected is below the Reporting Limit/LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

M Estimated Maximum Possible Concentration (CA Region 2 projects only)

NA Not applicable

ND Not Detected

OPR Ongoing Precision and Recovery sample

P The reported concentration may include contribution from chlorinated diphenyl

ether(s).

Q The ion transition ratio is outside of the acceptance criteria.

RL Reporting Limit

TEQ Toxic Equivalency

U Not Detected (specific projects only)

* See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

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Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-В
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

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NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated	EPA 23
Dibenzofurans	
Determination of Polychlorinated p-Dioxins & Polychlorinated	EPA TO-9A
Dibenzofurans	

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B
Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue	EPA 1668A/C
by GC/HRMS	
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by	EPA 1699
HRGC/HRMS	
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by	EPA 8280A/B
GC/HRMS	
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated	EPA
Dibenzofurans (PCDFs) by GC/HRMS	8290/8290A

MATRIX: Drinking Water						
Description of Test	Method					
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA					
	1613/1613B					
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522					
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537					
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009					

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MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B
Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue	EPA 1668A/C
by GC/HRMS	
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated	EPA 8280A/B
Dibenzofurans by GC/HRMS	
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated	EPA
Dibenzofurans (PCDFs) by GC/HRMS	8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated	EPA 8280A/B
Dibenzofurans by GC/HRMS	
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated	EPA
Dibenzofurans (PCDFs) by GC/HRMS	8290/8290A

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POC: * Delaney Peterson (360-715-2707)

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

_	-	~	IF	٠.
۰	u	C	H.	J:

VIST1-20191013-143451

Sample Custodian:

SN

Project:

Gasco PDI

	1605 Cornwall Avenue, E	Bellingham, WA	98225	Client:	NW N	Natural	ĺ	1903654	3.8°C 3.6°C Lab:	pie Gustoulait.	VISTA - Archiv	/e
COC Sample Number	Field Sample ID	Sample Type	Matrix	Collecte Date	ed Time	# Containers	Lab QC*	Test Request		Method	TAT**	Preservative
001	PDI-073SC-B-00-02-191013	N	SE	10/13/2019	10:37	1						
								Archive (VISTA)		ARCHIVE	-1	-10°C
002	PDI-073SC-B-02-04-191013	N	SE	10/13/2019	10:37	1						
								Archive (VISTA)		ARCHIVE	-1	-10°C
003	PDI-073SC-B-04-06-191013	N	SE	10/13/2019	10:37	1						
								Archive (VISTA)		ARCHIVE	T-1	-10°C
004	PDI-073SC-B-06-08-191013	N	SE	10/13/2019	10:37	1						
								Archive (VISTA)		ARCHIVE	T-1	-10°C
005	PDI-075SC-B-00-02-191013	N	SE	10/13/2019	7:35	1						
								Archive (VISTA)		ARCHIVE	T-1	-10°C
006	PDI-075SC-B-02-04-191013	N	SE	10/13/2019	7:35	1						
								Archive (VISTA)		ARCHIVE	T -1	-10°C
007	PDI-075SC-B-04-06-191013	N	SE	10/13/2019	7:35	1	Х					
								Archive (VISTA)		ARCHIVE	-1	-10°C
800	PDI-075SC-B-06-08-191013	N	SE	10/13/2019	7:35	1			C/-			1
								Archive (VISTA)		ARCHIVE	-1	-10°C
009	PDI-076SC-B-00-02-191013	N	SE	10/13/2019	13:17	1						
								Archive (VISTA)		ARCHIVE	-1	-10°C
010	PDI-076SC-B-02-05-191013	N	SE	10/13/2019	13:18	1						
								Archive (VISTA)		ARCHIVE	-1	-10°C
011	PDI-076SC-B-05-07-191013	N	SE	10/13/2019	13:19	1						
Comm		Received By:		Deliancial								
Signatur		gnature	100	Relinquish Signature	eu By:			Received By: Signature	Relinquished B Signature	у:	Received By: Signature	
Print Na	me Pr	int Name		Print Name		-		Print Name	Print Name		Print Name	
Compan	C-ONFIRO CO	ompany - Jacobs	, Va	Company								
Date/Tim	HQ	I/AL						Company	Company		Company	*
10	11419 0755	10/15/19	08	Date/Time				Date/Time	Date/Time		Date/Time	



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID:

Lab:

VIST1-20191013-143451

_

SN

Sample Custodian:

VISTA - Archive

POC: * Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Client: Gasco PDI NW Natural

1403654

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collecte Date	ed Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
011	PDI-076SC-B-05-07-191013	N	SE	10/13/2019	13:19	1					
								Archive (VISTA)	ARCHIVE	-1	-10°C

Comment:					
Relinquisfied By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Constitut D
Signature Mm	Signature	Signature			Received By: Signature
Print Name C. ORERO	Print Name Flagten Ganas	Print Name	Print Name	Print Name	Print Name
Company Q		Company	Company	Company	Company
Date/Time 10 14/19 0755	Date/Time / 0 1 / 19 0 8 : 5	Date/Time	Date/Time	Date/Time	Date/Time



Sample Log-In Checklist

Vista Work Orde	er#:\(103f	554					: 1 Std	of	_
Samples	Date/Time			Initials:		Loca	tion:	WR-Z	,	
Arrival:	10/15/19	C	8:51	HOG		Shelt	f/Rac	k: <u>//</u> /	4	
Delivered By:	FedEx	UPS	On Tra	ic GSO	DH	L	Har Delive		Ot	her
Preservation:	(Ce)		Blu	ie Ice		Dry	Ice		No	one
Temp °C: 3.8	(uncorrect	ted)	-022							
Temp °C: 3.8	(corrected	Pr	robe use	ed: Y /(N)		Theri	nome	eter ID:	<u>TR-</u>	4
	《》等									
Chinaina Cartai								YES	NO	NA
Shipping Containe								V		
Shipping Custody								/		
Airbill 2 of 4	Trk #	7767	1463	1378				V		
Shipping Docume	ntation Prese	ent?						1		
Shipping Containe	er	Vis	sta	Client	Re	etain	Ri	eturn	Dist	oose
Chain of Custody	/ Sample Do	cument	ation Pre	sent?				/		
Chain of Custody										
Holding Time Acce			20011 001	iipicte :	-			1/		
Logged In:	Date/Time	1200		Initials:		Locat				
		1-00		•		Shelf/	Rack	: 0-1		
COC Anomaly/Sar	nple Accepta	ince For	rm comp	leted?					/	1

Comments:

ID.: LR - SLC

Rev No.: 4

Rev Date: 10/08/2019

Page: 1 of 1



Sample Log-In Checklist

Vista Work Orde	r#:	10365	14					Page # _	()	of	_
Samples Arrival:	Date/Time			In	itials:				WR-2	_	
2	10/10/19	0851			OMM		Sh	elf/Rack	: <u>Na</u>		
Delivered By:	FedEx	UPS	On Tra	ic	GSO	DHI	L	Han Delive		Otl	ner
Preservation:	lo		Blu	ue l	ce		D	ry Ice		No	ne
Temp °C: 3,8	(uncorre	ected)	•		. ^				a di		
Temp °C: 3.6		ed)	robe use	ed:	YIN)	The	ermome	ter ID:	IR-	3
						***************************************				_	
		#		<u>.</u>		*	.		YES	NO	NA
Shipping Contain	er(s) Intact	?							1		
Shipping Custody	Seals Inta	ct?							1		
Airbill 4 of			1463 80.	21		203531700000			/		
Shipping Docume	entation Pre	esent?							1		
Shipping Contain	er	V	′ista		Client	R	etain	Re	eturn	Dis	oose
Chain of Custody	/ Sample [Documen	tation Pr	ese	ent? ())	presen	tino	ther coder		1	1
Chain of Custody						•				/	/
Holding Time Acc										1	/
	Date/Time	9		In	itials:		Loc	ation:	WF-2	14	
Logged In:	10/16/19	1200			WUS			elf/Rack	^ I		

Comments:

ID.: LR - SLC

Rev No.: 4

COC Anomaly/Sample Acceptance Form completed?

Rev Date: 10/08/2019

Page: 1 of 1

CoC/Label Reconciliation Report WO# 1903654

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	BaseMatr	Sample ix Comments
4 1903654-01 A	PDI-073SC-B-00-02-191013	Ø	001	13-Oct-19 10:3	7 🔟		Amber Glass, 120 mL	Ø	Solid	
4 1903654-02 A	PDI-073SC-B-02-04-191013	V	002	13-Oct-19 10:3°	7 🗹		Amber Glass, 120 mL		Solid	
7 1903654-03 A	PDI-073SC-B-04-06-191013	卤	003	13-Oct-19 10:3°	7 0,		Amber Glass, 120 mL	ø,	Solid	
4 1903654-04 A	PDI-073SC-B-06-08-191013		004	13-Oct-19 10:3	7 🗹		Amber Glass, 120 mL		Solid	
2 1903654-05 A	PDI-075SC-B-00-02-191013	Q	005	13-Oct-19 07:3	5 🗹		Amber Glass, 120 mL		Solid	
2 1903654-06 A	PDI-075SC-B-02-04-191013	Ø	006	13-Oct-19 07:3:	5 🗹		Amber Glass, 120 mL		Solid	
2 1903654-07 A	PDI-075SC-B-04-06-191013	卤	007	13-Oct-19 07:3:	5 🗹		Amber Glass, 120 mL		Solid	Dup
2 1903654-08 A	PDI-075SC-B-06-08-191013	Ø,	008	13-Oct-19 07:3:			Amber Glass, 120 mL	Ø	Solid	
4 1903654-09 A	PDI-076SC-B-00-02-191013	Ø	009	13-Oct-19 13:1			Amber Glass, 120 mL	1	Solid	
4 1903654-10 A	PDI-076SC-B-02-05-191013	Ø,	010	13-Oct-19 13:1	3 🗹		Amber Glass, 120 mL		Solid	
4 1903654-11 A	PDI-076SC-B-05-07-191013	d	011	13-Oct-19 13:19			Amber Glass, 120 mL		Solid	

	Yes	No	NA	Comments:
Sample Container Intact?	J			
Sample Custody Seals Intact?			/	
Adequate Sample Volume?	V			
Preservation Documented: Na2S2O3 Trizma None Other		5	1,	"2" = cooler 2 "4" = cooler 4
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			J	"4" = cooler 4

Verifed by/Date: HDG- 10/17/19

EXTRACTION INFORMATION

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Process Sheet

Workorder: 1903654

Prep Expiration: 2020-10-12

Client: Anchor QEA, LLC

Workorder Due: 03-Jan-20 00:00

TAT: 80

Method: 1613 Full List

Matrix: Solid Client Matrix: Sediment Also run: Percent Solids Prep Batch: BOA 0056

Prep Data Entered:

M AllY/20
Date and Initials

Initial Sequence: 508 600 1

LabSampleID	Recon ClientSampleID	Date Received	Location	Comments
1903654-01 A	PDI-073SC-B-00-02-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-02 A	PDI-073SC-B-02-04-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-03 A	PDI-073SC-B-04-06-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-04 A	PDI-073SC-B-06-08-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-05 A	PDI-075SC-B-00-02-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-06 A	PDI-075SC-B-02-04-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-07 A	PDI-075SC-B-04-06-191013	15-Oct-19 08:51	WF-2 D-1	Dup
1903654-08 🐧	PDI-075SC-B-06-08-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-09 A	PDI-076SC-B-00-02-191013 /	15-Oct-19 08:51	WF-2 D-1	
1903654-10 A	PDI-076SC-B-02-05-191013	15-Oct-19 08:51	WF-2 D-1	
1903654-11 A	PDI-076SC-B-05-07-191013	15-Oct-19 08:51	WF-2 D-1	

WO Comments: Dioxin - 10g (dry weight)

Pre-Prep Check Out: RR 01/03/20 Pre-Prep Check In: RR 01/03/20

Prep Check Out: 846 01/09/20

Prep Check In: 8013 01 109/20

Prep Reconciled Initals/Date: RP 01/03/20 Spike Reconciled Initals/Date: 808 01 09120 VialBoxID: Cherry sprite

Page 1 of 1

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1903654-01	15.31	65.69037	10.0572	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-02	15.72	64.23488	10.0977	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-03	12.66	79.71014	10.0913	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-04	15.45	64.91936	10.0300	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-05	20.19	49.79167	10.0529	20	09-Jan-20 08:08	BNB	_	_	Sediment	1613 Full List
1903654-06	17.76	56.59656	10.0515	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-07	16.7	60.42781	10.0914	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-08	16.33	61.85567	10.1010	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-09	18.3	54.70942	10.0118	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-10	17.48	57.75701	10.0959	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903654-11	16.56	61.33909	10.1578	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903827-01	19.01	53.13284	10.1006	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903827-02	18.69	54.08561	10.1086	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903827-03	17.03	59.06041	10.0580	20	09-Jan-20 08:08	BNB	_		Sediment	1613 Full List
1903827-04	17.29	57.84754	10.0018	20	09-Jan-20 08:08	BNB	_		Sediment	1613 Full List
1903827-05	17.51	57.85582	10.1306	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903827-06	17.49	57.59637	10.0736	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903827-07	16.2	61.82171	10.0151	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
1903827-08	14.01	71.875	10.0697	20	09-Jan-20 08:08	BNB			Sediment	1613 Full List
B0A0056-BLK1	10			20	09-Jan-20 08:08	BNB				QC
B0A0056-BS1	10			20	09-Jan-20 08:08	BNB	18F1913	10 /		QC
B0A0056-DUP1	16.6	62,41781	10.0310	20	09-Jan-20 08:08	BNB				QC

PREPARATION BENCH SHEET

Matrix: Solid

Method: 1613 Full List

B0A0056

Prepared using: HRMS - Soxhlet

Chemist: BB

Prep Date/Time: 09-Jan-20 08:08

С	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CHEM DA	1/WIT	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE	
	B0A0056-BLK1	AG	(10.00)	h 308 0/09/20	n	01113/20	A 01/13/20	01/13/20	n 01/13/20	m 01/13/	70 UTC 01/14/20	
	B0A0056-BS1	1	(10.00)	1	1			1		-		
	B0A0056-DUP1 1903654-07	16.55	16.60				m 01/13	16				
	1903654-012	15.22	15.51			_	N oiliz	70				
	1903654-02	15.57	15.72									
	1903654-03	12.55	12.66									
	1903654-04	15.40	15.45				U					
	1903654-05	20.08	20.19			· .						
	1903654-06	17.67	17.76									
	1903654-07	16.55	16.70				M onlist	4				
	1903654-08	16.17	16.33									
	1903654-09	18.28	18.30									
_	1903654-10	17.31	17.48									
	1903654-11	16.30	16.50									
	1903827-01	18.87	19.01	7	7		V .	1/2	<u>d</u>	V		
IS Name (V3) PCDD/F 19(250), 10,00		NS Name (VE) PCDD/F 1871913,100L			\smile		RS Name Us		ycle Time APP: SEFUN SOX		heck Out: hemist/Date: 원용이 위원	
PCB		PCB		PCB		PCB		0169/20 B30	Other <u>NA</u>		Check In: Chemist/Date: Bos of CA	
AH_		РАН		PAH		РАН		Stop Date/Time	Final Volume(s) 20	<u>اير</u> B	alance ID: <u>HRUS-8</u>	
								orliolao 600	<u> </u>	<u>ч</u>		

1 = Sample approached dryness on rotovap 2 = Sample bumped on rotovap; lost < 5%

3 = Sample poured through Na2SO4 to remove water 4 = Precipitate present at Final Volume

5 = Sample homogenized in secondary container

6 = Sample clogged during extaction; pipetted and used Nitrogen to assist

@ 800 01/0A/20

PREPARATION BENCH SHEET

34.		0-1	
Ma	trix:	201	lla

Method:	1613	Full	Liet

B0A0056

Prepared using: HRMS - Soxhlet

Chemist:

Prep Date/Time: 09-Jan-20 08:08

С	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
_	1903827-02	18.49	18.69	U BOB OILOPAC	n 1 3/13/20	10111/20	M 01/13/20	N 01/13/10	1 01/13/70	RT ollylo
	1903827-03	16.93	17.03	1					1	
	1903827-04	17.29	17.29							
	1903827-05	17.28	17.51							
	1903827-06	17.36	17.49							
	1903827-07	16.18	16.20							
	1903827-08	13.91	14.01			7	V		3	

- Not enough microsoxhlets used HL and 4 solvent francised. But 01/09/20
- 0 n 01113120
- Orlot all Samples Acid partitioned Met 01/13/20
- Demple was clude of Den during first election. Sample was coelected right away. Additional Den was adoled. Sample was then concentrated & to plansied. D+ 01/13/19
- (4) 2 0114120

IS Name	NS Name	CRS Name $\sqrt{5}$	RS Name (V _f)	Cycle Time	APP: SEFUN SON SDS	Check Out: Chemist/Date: 1808 oil of 120
PCDD/F_	1962301,10 pl PCDD/F 18F1913,10 ml	PCDD/F 1951602 10,2	PCDD/F MILO3 1000	Start Date/Time	SOLV: Tol	_
PCB	PCB	PCB	PCB	a <u>lalao 1530</u>	OtherA	Check In: Chemist/Date: <u>But or 09/20</u>
PAH	PAH	PAH	PAH	Stop Date/Time	Final Volume(s) 20	Balance ID: HR45-8
-				01/10/20 600	Ciu	
Commonto						

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume
- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extaction; pipetted and used Nitrogen to assist

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B9L0069

	_	
 Analyst: RR	Test Code: %Moist/%Solids	
Analyte:		Data Entry Verified by: (Initial and Date)
Dried at 110°C+/-5°C Oven ID: O-2		

st HRMS-8 🐣

Date/Time IN: Date/Time OUT 01/03/20 1325 01/07/20 0940

	В	С	D	E	F	G	Н		K	L	M	N	0	Р
				Intial and Date:	RR 01/03/20 🖊	ME 01/07/20 -			RR 01/03/20	1				RR 01/03/20 /
Particle Size	SamplD		SampType	Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	CI-		pH After	Acid Added	Sample Homogenized*
	1903654-01	A	Sample	1.2700	6.0500 /	4.4100 /	3.1400	65.69	MUD /	NA	NA	NA	NA	YES /
	1903654-02	A *	Sample	1.2700 /	6,8900 ^	4.8800 🗸	3.6100	64.23	MUD /	NA	NA	NA	NA	YES /
	1903654-03	A	Sample	1.2800 🖍	6.1100 /	5.1300 /	3.8500	79.71	SAND /	NA	NA	NA	NA	YES /
	1903654-04	A /	Sample	1.2900 /	6.2500 /	4.5100 /	3.2200	64.92	MUD /	NA	NA	NA	NA	YES 🖊
	1903654-05	A	Sample	1.2900 /	6.0900 /	3.6800 /	2.3900	49.79	MUD /	NA	NA	NA	NA	YES ,
	1903654-06	A	Sample	1.3000 -	6.5300 /	4.2600 /	2.9600	56.60	MUD /	NA	NA	NA	NA	YES 7
	1903654-07	A	Sample	1.3000 -	6.9100 /	4.6900 /	3.3900	60.43	MUD /	NA		NA	NA	YES /
	1903654-08	Α /	Sample	1.2800 <	6.1300 >	4.2800	3.0000	61.86	MUD /	NA	NA	NA	NA	YES /
	1903654-09	A .	Sample	1.2800 /	6.2700 /	4.0100 /	2.7300	54.71	MUD 1	NA		NA	NA	YES /
	1903654-10	A Z	Sample	1.2700 /	6.6200 <	4.3600 /	3.0900	57.76	MUD	NA	NA	NA	NA	YES /
	1903654-11	A /	Sample	1.2600 /	5.8900 /	4.1000	2.8400	61.34	MUD,	NA	NA	NA	NA	YES /
-														
		-												

^{*}Sample homogenized in sample container unless otherwise noted.

BCH_PMOIST_B9L0069

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B9L0069

Analyst: RP	Test Code: %Moist/%Solids	
		Data Entry Verified by:
Analyte:	Units: %	(Initial and Date)
Dried at 110°C+/-5°C		,, <u></u>
Oven ID: (01) 02		

Inst HRMS -8

Date/Time IN: Date/Time OUT
01-03-20/13:25 a1 07 20 09:40

	В	С	D	E	F	G	н	1	K		M	N	0	Р
Particle Size	SamplD		SampType	Intial and Date:	RP 0/03/20 Wet Pan and Sample	ME 01/07/20 Dry Pan and Sample	Dry Sample	%Solids	RP 01/	/ 03/ CI-	2⊌ pH	рĤ	Acid	12R 01/03/2
Parucie Size	Sampio		Samprype	Tare Wt. (gms)	Weight (g)	Weight (g)	Weight (g)	RawVal	Inspection	<u> </u>	Before	After	Added	Sample Homogenize
	1903654-01		Sample	1.27	6.05	4.41			Mud					X
	1903654-02		Sample	1.27	6.05	4.88			Mud					X
	1903654-03 A		Sample	1,28	6.11	5.13			Sand					X
	1903654-04		Sample	1,29	6.25	4.51			Muc					X
	1903654-05 A		Sample	1.29	6.09	3.68			Mud					X
	1903654-06 A		Sample	1.30	6.53	4.26			Mud					X
	1903654-07		Sample	1.30	6.91	4.69			Mud					<i>X</i>
	1903654-08 A		Sample	1,28	6,13	4.28			Mud					<u></u>
	1903654-09 A		Sample	1.28	6.27	4.01			Mud					
	1903654-10 🗛		Sample	1.27	6.62	4.36			Mud	_				X
	1903654-11 A		Sample	1,26	5,89	4.10			Mud					X
										_				-
												\vdash		
										_				
												-		
- 30				_						\vdash		\vdash		
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^{*}Sample homogenized in sample container unless otherwise noted.

8CH_PMOIST_B9L0069.xls

12/6/2019 6:31 AM



Prep Expiration: 2020-10-12

Process Sheet

Workorder: 1903654

Workorder Due:03-Jan-20 00:00

TAT: 80

Method: 1613 Full List

Client: Anchor QEA, LLC

Matrix: Solid Client Matrix: Sediment Also run: Percent Solids

Prep Batch: BoCo209

Prep Data Entered:

Initial Sequence:

1904 July - ("

		Initia	Sequence:	
LabSampleID	Recon ClientSampleID	Date Received	Location Comments	1904161 03
		15-Oct-19 08:51	WR-2 G-5	1904161-09 1904161-10
		15-Oct-19 08:51	WR-2 G-5	19041 61 -11
	20100101010	15-Oct-19 08:51	WR-2 G-5 アプラン	1 904161 -12 1907:61 -13
		15-Oct-19 08:51	Percent Se 5-9 S-AW	1904161-14
1903654-05	PDI-075SC-B-00-02-191013	15:0ct-19 08:51	Percent Sude Pc pent Soli ² -D 2-RW	1 904 161-15 1 904 161-16
		15-Oct-19 📆:51	Percent Solidio 2-AW	1904161-17
		15-Oct-19 08:51	Percent Solids qud. 2-9 2-9W Percent Solids	1904161-18 190416 1-19
1903654-08	PDI-075SC-B-06-08-191013	15-Oct-19 08:57	Percent Solids 2-RW	1904161-20
	707000	15-Oct-19 08:51	WR-2 G-5	
		15-Oct-19 08:51	WR-2 G-5	
1903654-11	PDI-076SC-B-05-07-191013	15-Oct-19 08:51	WR-2 G-5	

WO Comments: Dioxin - 10g (dry weight) RR 03/17/20 Prep Check Out: RR 03/17/20 Pre-Prep Check Out: _ NA Prep Reconciled Initals/Date: PR 03/17/20 Prep Check In: R.R 03/17/20 Pre-Prep Check In: __ Spike Reconciled Initals/Date: 00

PREPARATION BENCH SHEET

	_	
Mo	triv.	Solid
1419	LLI IX.	Solid

Method: 1613 Full List

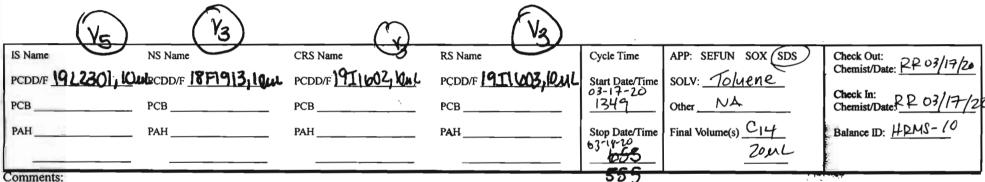
	B0C0209	

Prepared using: HRMS - Soxhlet

Chemist:

Prep Date/Time: 17-Mar-20 10:39

С	VISTA Sample ID	G Eqv	Sample Amt. (g)	CHE	/NS M/WIT ATE	CHE	RS M/WIT ATE	A CHI DA		CH	BSG EM/ ATE		A CHI DA	EM/	CH	orisil IEM/ ATE	CHE	RS M/WIT ATE
	B0C0209-BLK1	NA	(10.00)	as r	P 03/11/2	0 00 A	2 03/18/20	AZ o	3/18/20	QO A= 03	[8]	w	45 0	3 18/26	ao	03/18/20	00	2 03/18/2
]	B0C0209-BS1	NA	(10,00)	_ 1	_ ' '		T	J	<u> </u>		Ť		`-	,	1	- / /		7 1
	1903654-05RE3	20.08	20.09								ble	ack		\				
	1903654-08RE3	16.17	16.51].			:				~	
	1903654-11RE3	16.30	16.31															
	1903827-05RE3	17.28	17.29								$\prod I$							
	1904161-16RE5	17.58	17.88								l	•	j					
	2000142-16RE1	13.67	13.77	\				L	A						1			4



^{1 =} Sample approached dryness on rotovap

^{2 =} Sample bumped on rotovap; lost < 5%

^{3 =} Sample poured through Na2SO4 to remove water

^{4 =} Precipitate present at Final Volume

Batch: B0C0209

Matrix: Solid

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1903654-05RE3	20.09 🗸	49.79167	10.0031	بر 20	17-Mar-20 10:39	FACO Y			Sediment	1613 Full List
1903654-05RE4	20.09	49.79167	10.0031	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1903654-08RE3	16.51 🗸	61.85567	10.2124	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1903654-08RE4	16.51	61.85567	10.2124	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1903654-11RE3	16.31 🗸	61.33909	10.0044	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1903654-11RE4	16.31	61.33909	10.0044	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1903827-05RE3	17.29 🗸	57.85582	10.0033	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1903827-05RE4	17.29	57.85582	10.0033	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1904161-16RE5	17.88 🗸	56.88074	10.1703	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
1904161-16RE6	17.88	56.88074	10.1703	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
2000142-16RE1	13.77 🗸	73.16018	10.0742	20	17-Mar-20 10:39	ACO			Sediment	1613 Full List
B0C0209-BLK1	10			20	17-Mar-20 10:39	ACO			_	QC
B0C0209-BS1	10			20 🗸	/ 17-Mar-20 10:39	ACO	18F1913	V 10 V		QC

Printed: 3/24/2020 1:55:35PM Page 1 of 1

All-bolded data on report vsnified against written benchsheet by (initial/date) AZ 03/24/20

SAMPLE DATA – EPA METHOD 1613

Work Order 1903654 Page 43 of 1184

Page 1 of 2

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200202R1\200202R1-4.qld

Friday, March 13, 2020 12:20:57 Pacific Daylight Time Last Altered: Friday, March 13, 2020 12:21:03 Pacific Daylight Time Printed:

1/2 3.13.20 DO CT 03/13/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_4, Date: 02-Feb-2020, Time: 12:44:53, ID: B0A0056-BLK1 Method Blank 10, Description: Method Blank

#-Name	- Resp	; RA	- n/y	: RRF	: wt/vol :	Pred.RT	RT	: Pred.RRT	RRT	Conc.	. %Rec .	DL-	EMPC
1 2,3,7,8-TCDD			NO	0.988	10.000	25.736		1.001				0.0658	
2 1,2,3,7,8-PeCDD			NO	0.972	10.000	30.657		1.001				0.0645	
3 , 3 1,2,3,4,7,8-HxCDD			NO	1.07	10.000	33.997		1.000				0.0572	
4 1,2,3,6,7,8-HxCDD			NO	0.921	10.000	34.094		1.000				0.0574	
5 1,2,3,7,8,9-HxCDD			NO	0.918	10.000	34.405		1.001				0.0611	
6 • 6 1,2,3,4,6,7,8-HpCDD			NO	0.923	10.000	37.928		1.000				0.0972	
7 OCDD	7.52e2	0.85	NO	0.975	10.000	40.910	40.92	1.000	1.000	0.24620		0.0872	0.246
8 2,3,7,8-TCDF			NO	0.802	10.000	24.862		1.001				0.0472	- 1
9 1,2,3,7,8-PeCDF			NO	0.907	10.000	29.391		1.001				0.0439	
10 , 10 2,3,4,7,8-PeCDF			NO	0.952	10.000	30.361		1.001				0.0399	
11 1,2,3,4,7,8-HxCDF			NO	0.862	10.000	33.125		1.000				0.0407	
12 1,2,3,6,7,8-HxCDF			NO	0.841	10.000	33.252		1.000				0.0406	
13 · 13 2,3,4,6,7,8-HxCDF			NO	0.898	10.000	33.861		1.001				0.0442	
14 · 14 1,2,3,7,8,9-HxCDF	4.44e2	0.89	YES	0.858	10.000	34.733	34.74	1.000	1.000	0.097248		0.0893	0.0829
15 1,2,3,4,6,7,8-HpCDF			NO	0.851	10.000	36.516		1.001				0.0667	
16 1,2,3,4,7,8,9-HpCDF			NO	0.980	10.000	38.503		1.000				0.0732	
17 17 OCDF			NO	0.806	10.000	41.102		1.000				0.0935	
18 13C-2,3,7,8-TCDD	1.52e6	0.80	NO	1.20	10.000	25.706	25.70	1.026	1.026	188.04	94.0	0.183	
19 . 19 13C-1,2,3,7,8-PeCDD	1.23e6	0.63	NO	0.967	10.000	30.450	30.64	1.215	1.222	188.23	94.1	0.186	
20 20 13C-1,2,3,4,7,8-HxCDD	9.54e5	1.28	NO	0.874	10.000	33.988	33.99	1.014	1.014	164.06	82.0	0.297	
21 13C-1,2,3,6,7,8-HxCDD	1.11e6	1.28	NO	1.05	10.000	34.089	34.09	1.017	1.017	159.88	79.9	0.248	
22 · 22 13C-1,2,3,7,8,9-HxCDD	1.06e6	1.24	NO	0.974	10.000	34.390	34.37	1.026	1.025	163.61	81.8	0.266	
23 23 13C-1,2,3,4,6,7,8-HpCDD	7.98e5	1.01	NO	0.747	10.000	37.944	37.92	1.132	1.131	160.49	80.2	0.439	
24 24 13C-OCDD	1.25e6	0.88	NO	0.707	10.000	40.826	40.91	1.218	1.221	266.75	66.7	0.295	
25 25 13C-2,3,7,8-TCDF	2.07e6	0.77	NO	1.07	10.000	24.887	24.84	0.993	0.991	170.19	85.1	0.280	
26 13C-1,2,3,7,8-PeCDF	2.04e6	1.59	NO	1.00	10.000	29.222	29.37	1.166	1.172	178.52	89.3	0.360	
27 . 27 13C-2,3,4,7,8-PeCDF	1.97e6	1.59	NO	0.962	10.000	30.175	30.33	1.204	1.210	179.28	89.6	0.375	
28 13C-1,2,3,4,7,8-HxCDF	1.29e6	0.51	NO	1.05	10.000	33.117	33.13	0.988	0.988	184.90	92.5	0.325	
29 29 13C-1,2,3,6,7,8-HxCDF	1.42e6	0.52	NO	1.19	10.000	33.217	33.24	0.991	0.992	179.18	89.6	0.287	
30 13C-2,3,4,6,7,8-HxCDF	1.23e6	0.52	NO	1.07	10.000	33.824	33.83	1.009	1.009	173.16	86.6	0.320	
31 31 13C-1,2,3,7,8,9-HxCDF	1.06e6	0.52	NO	0.922	10.000	34.726	34.73	1.036	1.036	173.32	86.7	0.370	

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Page 2 of 2

Dataset: U:\VG12.PRO\Results\200202R1\200202R1-4.qld

Last Altered: Friday, March 13, 2020 12:20:57 Pacific Daylight Time

Printed: Friday, March 13, 2020 12:21:03 Pacific Daylight Time

Name: 200202R1_4, Date: 02-Feb-2020, Time: 12:44:53, ID: B0A0056-BLK1 Method Blank 10, Description: Method Blank

	: #-Name	- Resp	; RA	. n/y	RRF	; wt/vol ;	Pred.RT;	RT	Pred.RRT	RRT ;	Conc.	- %Rec -	DL-	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	8.76e5	0.44	NO	0.767	10.000	36.469	36.48	1.088	1.088	171.68	85.8	0.422	
32 33	33 13C-1,2,3,4,7,8,9-HpCDF	5.97 e 5	0.44	NO	0.552	10.000	38.480	38.50	1.148	1.149	162.31	81.2	0.586	
34	34 13C-OCDF	1.44e6	0.87	NO	0.789	10.000	41.061	41.10	1.225	1.226	273.60	68.4	0.231	
35	35 37CI-2,3,7,8-TCDD	6.16e5			1.18	10.000	25.739	25.74	1.027	1.027	77.455	96.8	0.0503	
36 37	36 13C-1,2,3,4-TCDD	1.35e6	0.79	NO	1.00	10.000	25.080	25.06	1.000	1.000	200.00	100	0.219	
37	37 13C-1,2,3,4-TCDF	2.28e6	0.79	NO	1.00	10.000	23.420	23.42	1.000	1.000	200.00	100	0.298	
38	38 13C-1,2,3,4,6,9-HxCDF	1.33e6	0.51	NO	1.00	10.000	33.520	33.52	1.000	1.000	200.00	100	0.341	
39	39 Total Tetra-Dioxins				0.988	10.000	24.620		0.000				0.0404	
40 41	40 Total Penta-Dioxins				0.972	10.000	29.960		0.000				0.0264	
41	3 41 Total Hexa-Dioxins				0.921	10.000	33.635		0.000				0.0297	
42	, 42 Total Hepta-Dioxins				0.923	10.000	37.640		0.000				0.0501	
43	43 Total Tetra-Furans				0.802	10.000	23.610		0.000				0.0191	
44	44 1st Func. Penta-Furans				0.907	10.000	27.090		0.000				0.0116	
44 45	45 Total Penta-Furans				0.907	10.000	29.275		0.000				0.0190	
46	46 Total Hexa-Furans				0.898	10.000	33.555		0.000		0.00000		0.0251	0.0829
47	47 Total Hepta-Furans				0.851	10.000	37.835		0.000				0.0353	

Work Order 1903654 Page 45 of 1184

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-4.qld

Last Altered: Printed:

Friday, March 13, 2020 12:20:57 Pacific Daylight Time Friday, March 13, 2020 12:21:03 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_4, Date: 02-Feb-2020, Time: 12:44:53, ID: B0A0056-BLK1 Method Blank 10, Description: Method Blank

Tetra-Dioxins

Name	RT	m1 Height; m2 Height;	m1 Resp; m2 Resp	RA n/y	Resp	Conc.	EMPC:	DL
1	 							
Penta Diavina								

Penta-Dioxins

Name	; 1	रा :	m1 Height; m2 Height;	m1 Resp; m2 Resp	RA n/y	Resp	Conc.	EMPC:	DL
1									

Hexa-Dioxins

Name	RT	ː m	11 Height m2 Height	m1 Resp: m2 Resp : RA : n/y :	Resp	- 5	Conc.	EMPC'	DL
								•	

Hepta-Dioxins

Name	RT	m1 Height; m2 Height;	m1 Resp' m2 Resp	RA n/y	Resp	Conc.	EMPC'	DL
1							•	

Tetra-Furans

Name	RT	m1 Height; m2 Height;	m1 Resp; m2 Resp RA n/y	Resp	Conc	EMPC:	DL
1						·	

Penta-Furans function 1

Name		RT :	m1 Height' m2 Height :	m1 Resp' m2 Resp	RA n/y	Resp	. Conc.	EMPC'	DL
1	•							•	

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Page 2 of 2

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-4.qld

Last Altered:

Friday, March 13, 2020 12:20:57 Pacific Daylight Time

Printed: Friday, March 13, 2020 12:21:03 Pacific Daylight Time

Name: 200202R1_4, Date: 02-Feb-2020, Time: 12:44:53, ID: B0A0056-BLK1 Method Blank 10, Description: Method Blank

Penta-Furans

Name	RT	m1 Height; m2 Height;	m1 Resp; m2 Resp ;	RA: n/y:	Resp	Conc.	EMPC'	DL
1								

Hexa-Furans

	Name	RT :	m1 Height; r	m2 Height ;	m1 Resp;	m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
l	1 ,1,2,3,7,8,9-HxCDF	34.74	4.104e3	4.357e3	2.094e2	2.343e2	0.89 YES	4.437e2	0.00000	0.082917	0.0593

Hepta-Furans

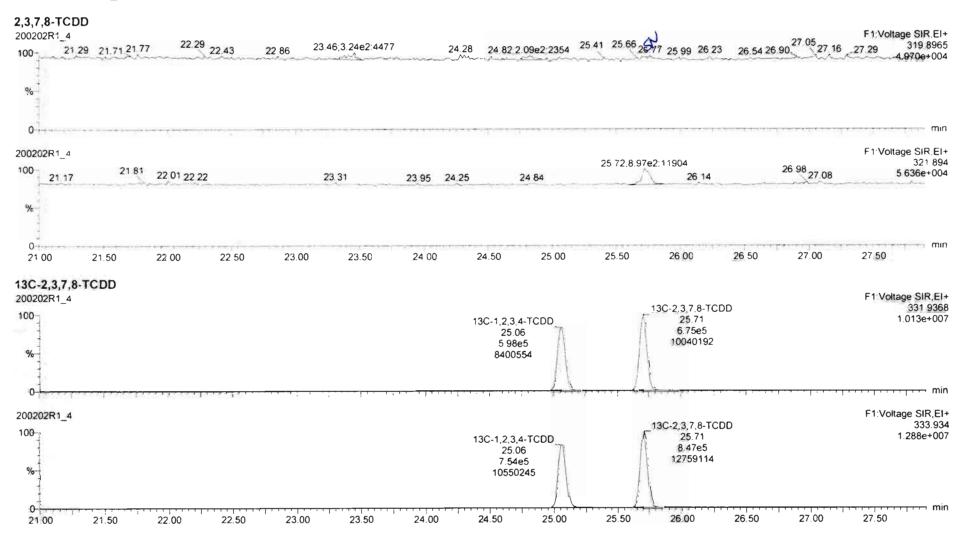
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1	•							•	

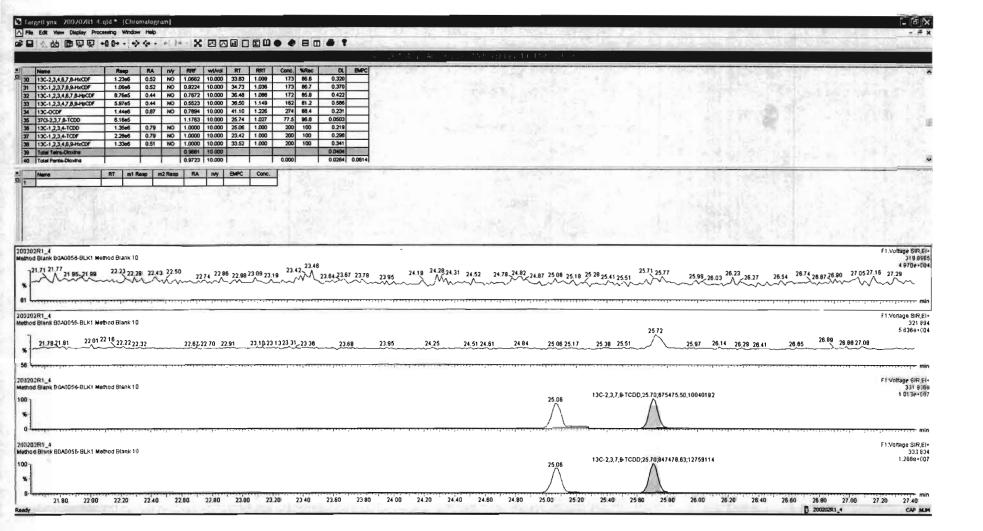
Work Order 1903654 Page 47 of 1184

Untitled

Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

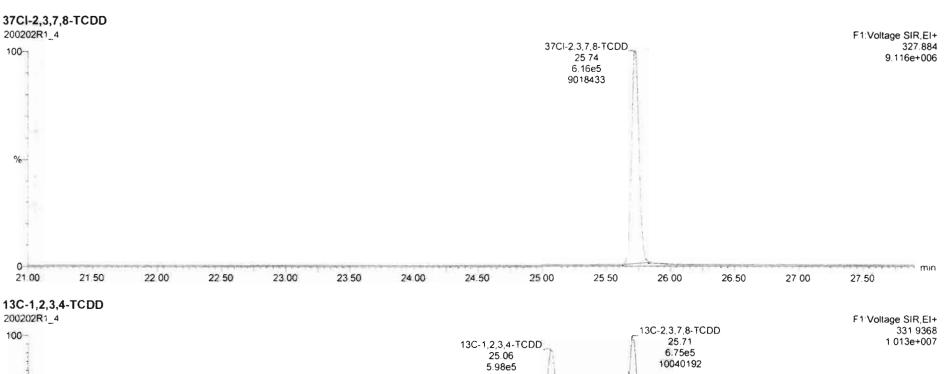


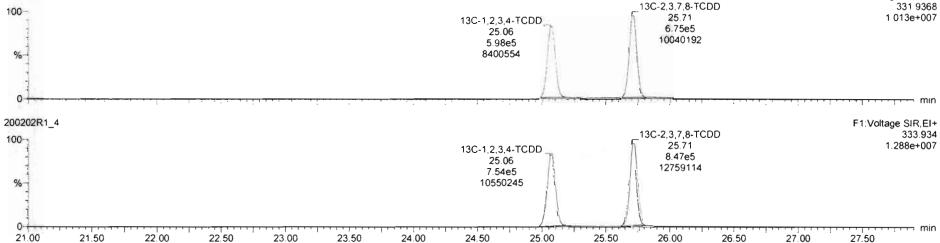


Work Order 1903654 Page 49 of 1184

Untitled

Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time





28.00

28.20

28.40

28.60

28.80

29.00

29.40

29.20

29.80

29.60

30.00

30.20

30.40

30.60

30.80

31.00

31.20

31.40

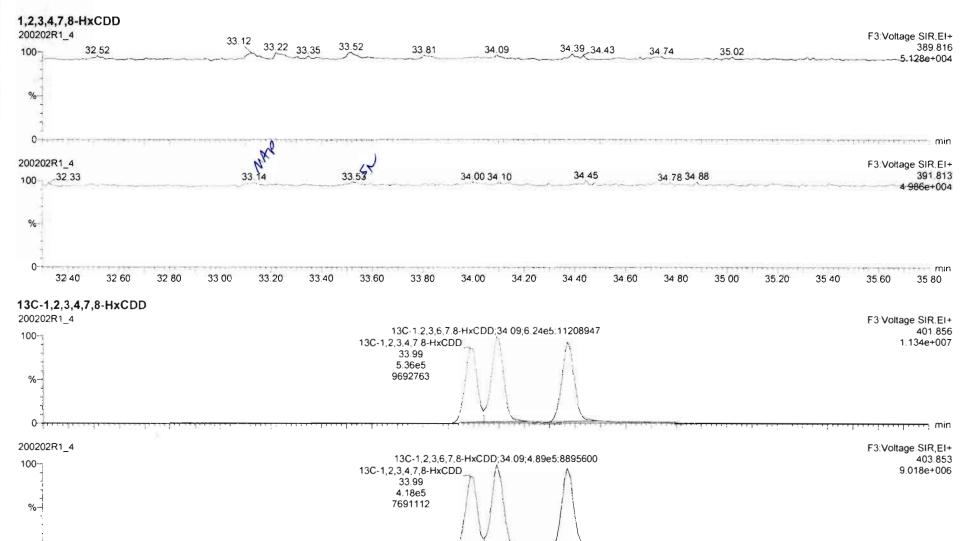
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31.60

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Last Altered: Monday, February 03, 2020 07:37:17 Pacific Standard Time Printed: Monday, February 03, 2020 07:37:41 Pacific Standard Time

Name: 200202R1_4, Date: 02-Feb-2020, Time: 12:44:53, ID: B0A0056-BLK1 Method Blank 10, Description: Method Blank



34.60

34.80

35.00

35.20

35.40

34.40

32.60

32.80

33.00

33.20

33.40

33.60

33.80

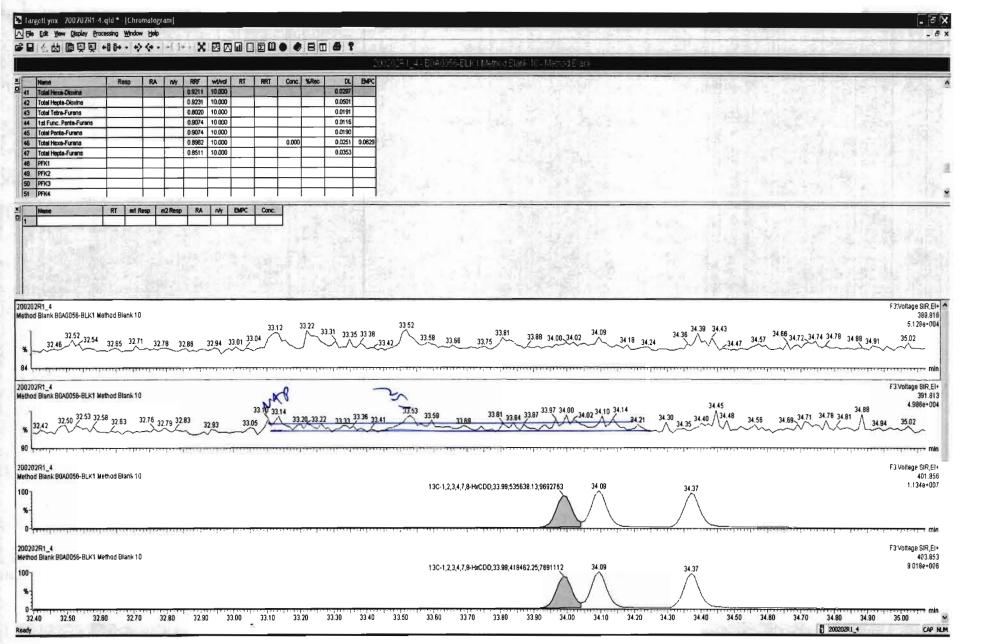
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32.40

35.60

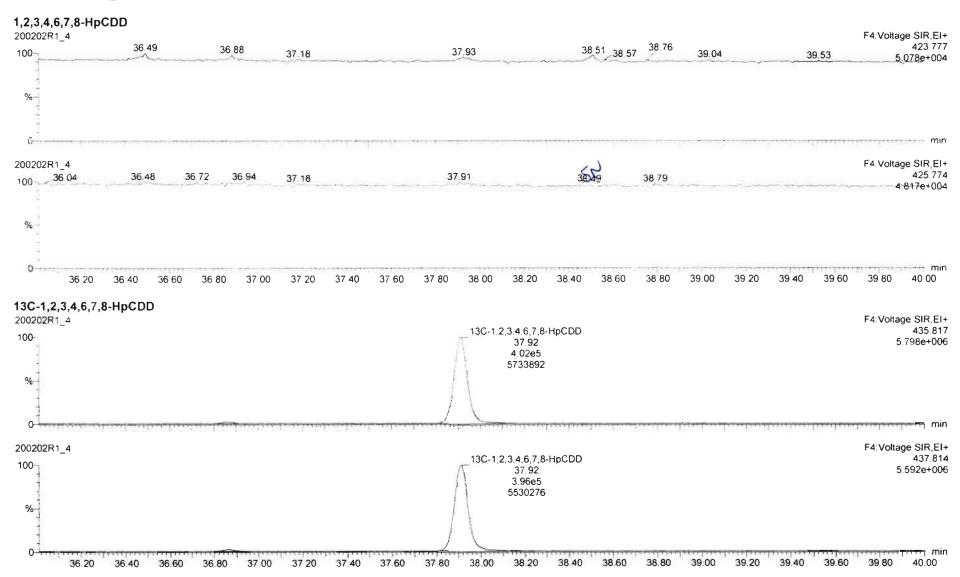
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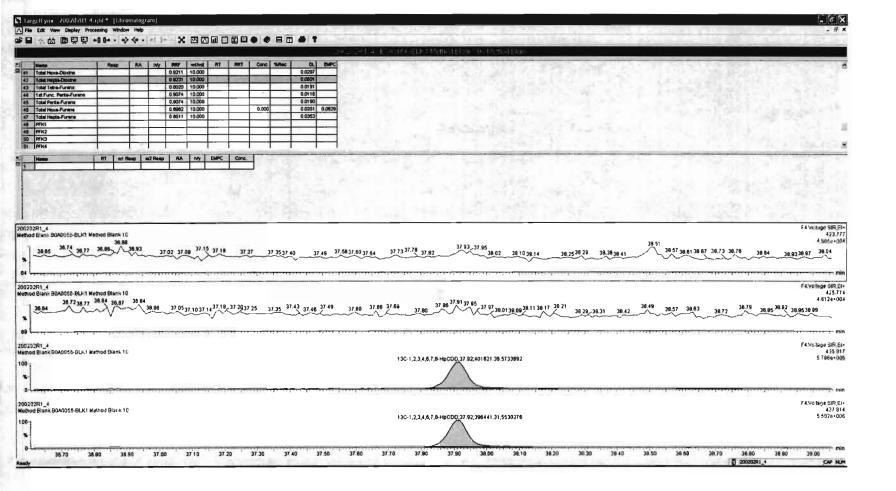


Work Order 1903654 Page 53 of 1184

Untitled

Last Altered: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time

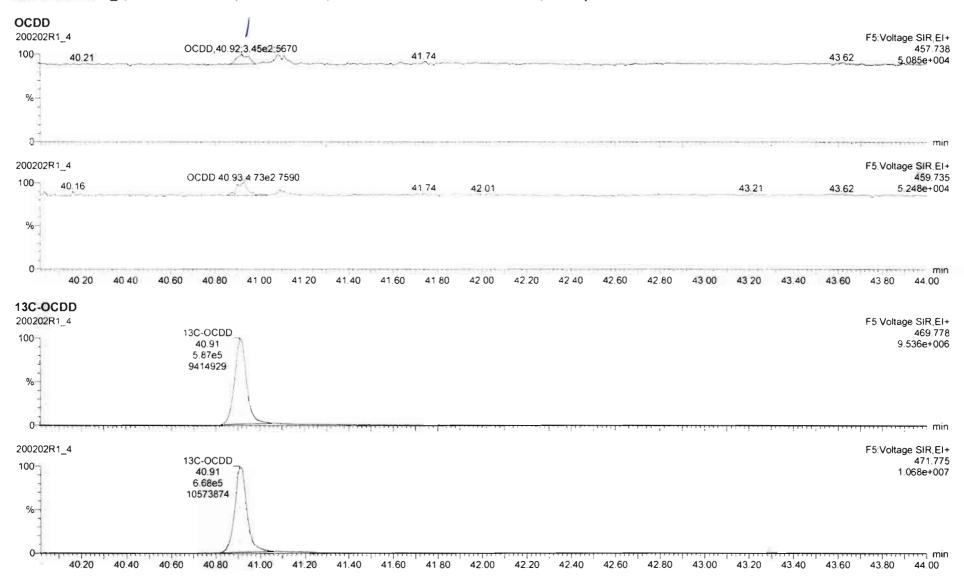


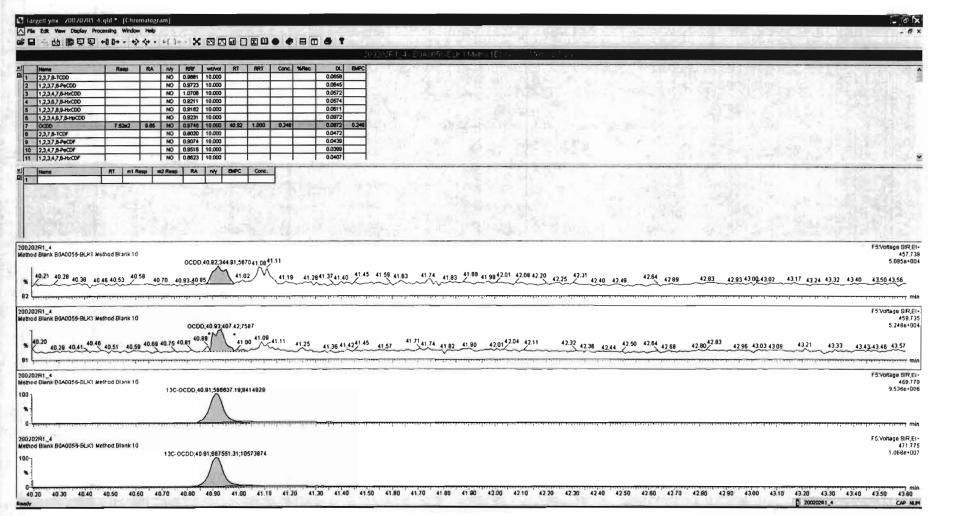


Work Order 1903654 Page 55 of 1184

Untitled

Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time

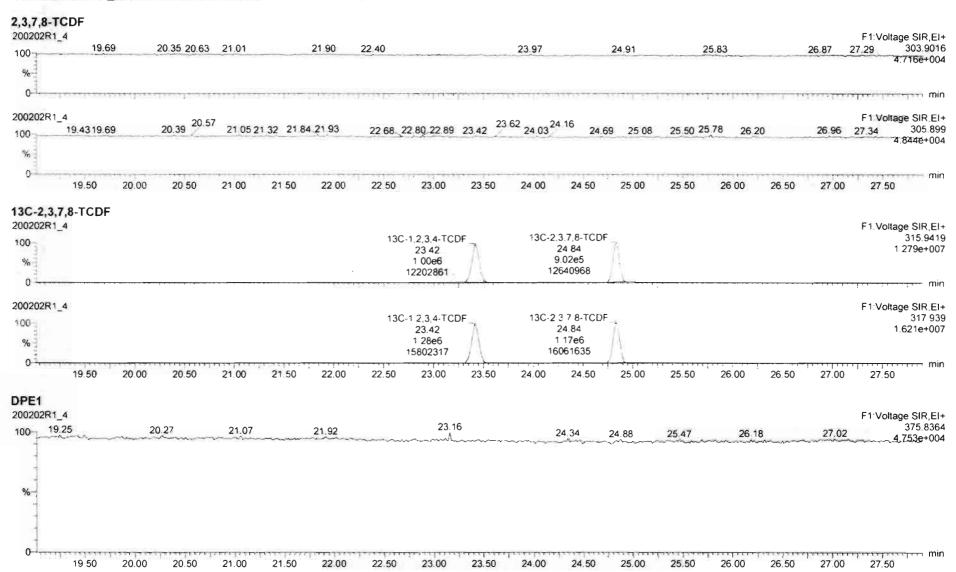


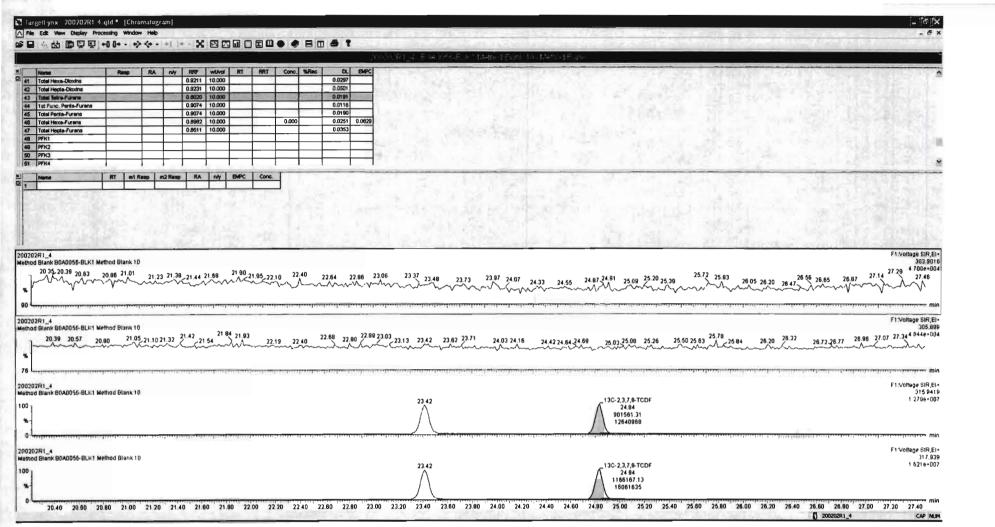


Work Order 1903654 Page 57 of 1184

Untitled

Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time





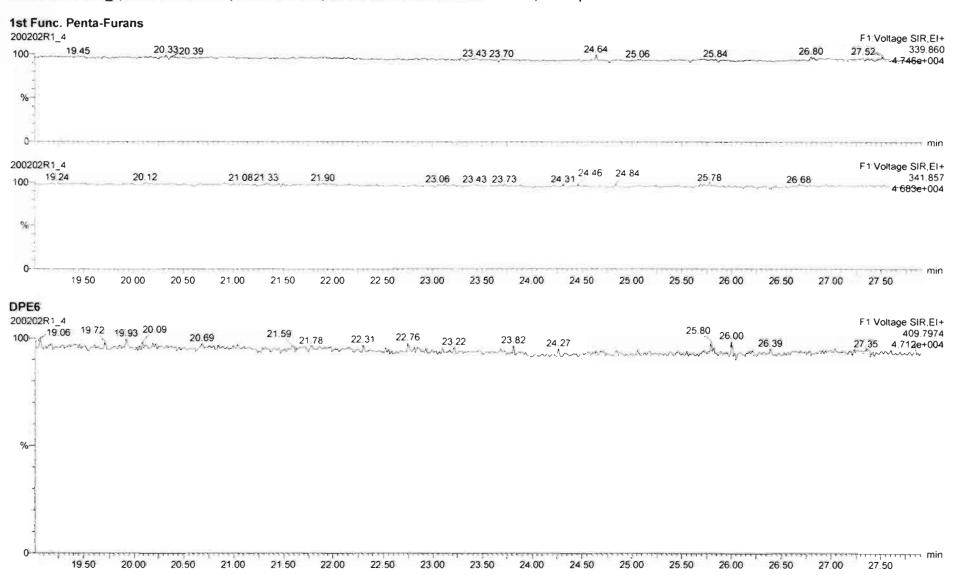
Work Order 1903654 Page 59 of 1184

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Dataset:

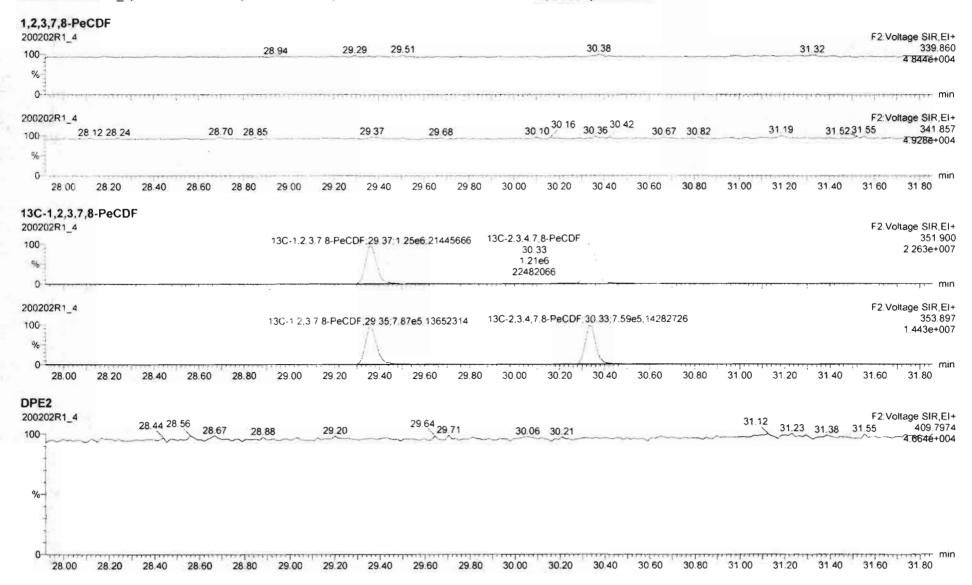
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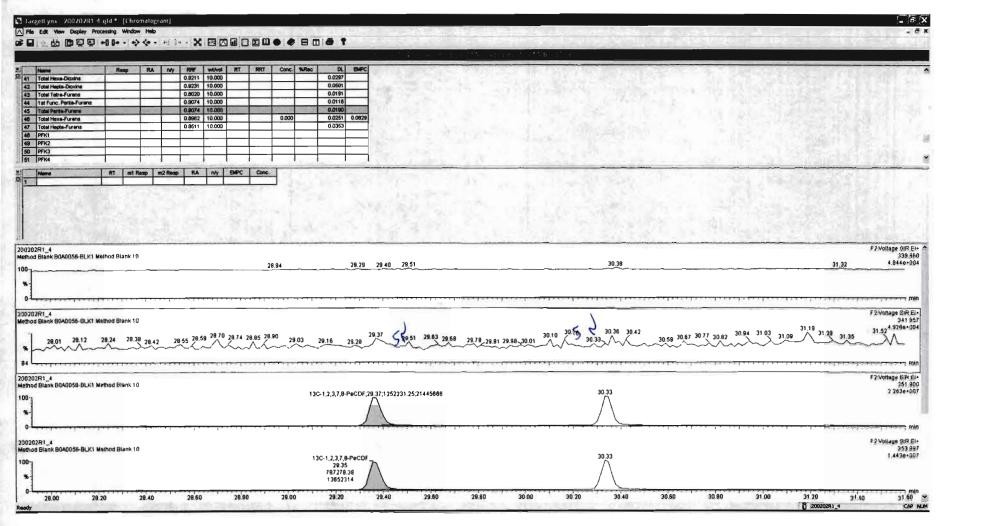
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Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time

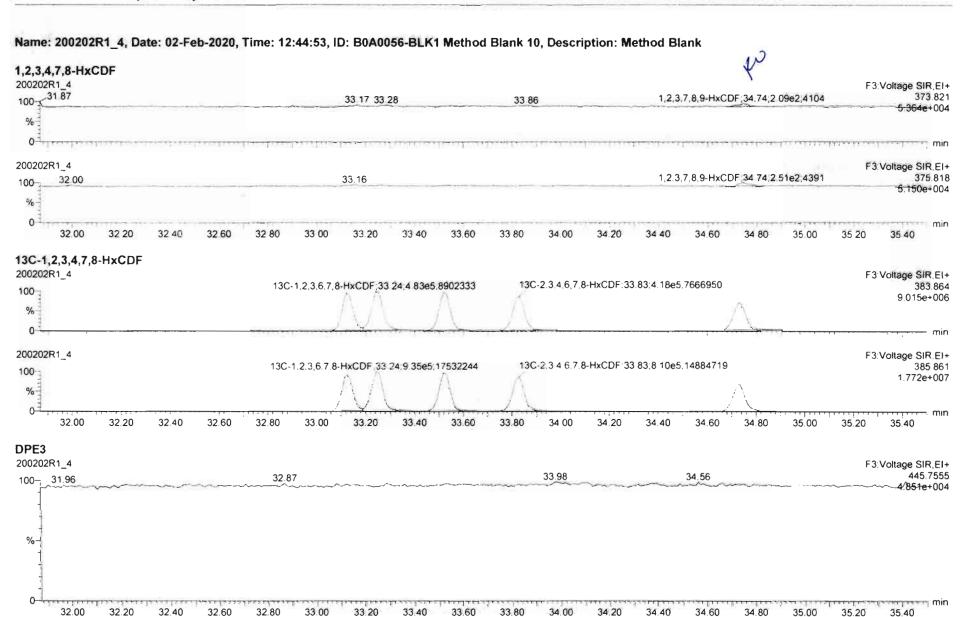


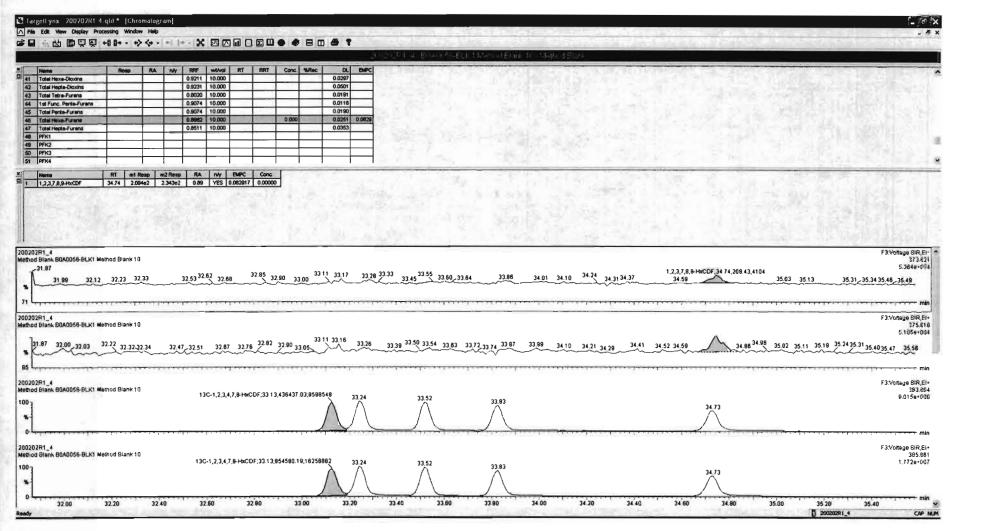


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Untitled

Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time





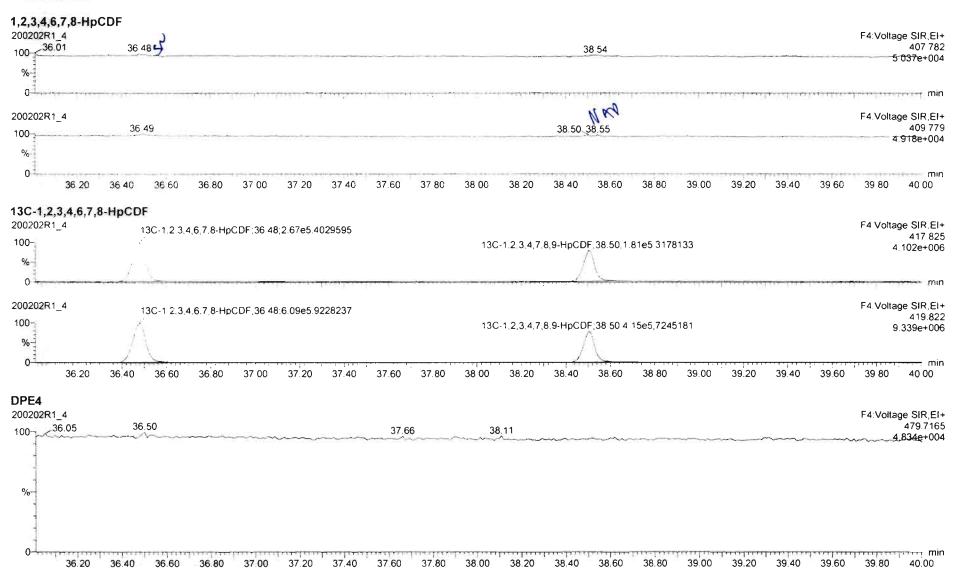
Work Order 1903654 Page 64 of 1184

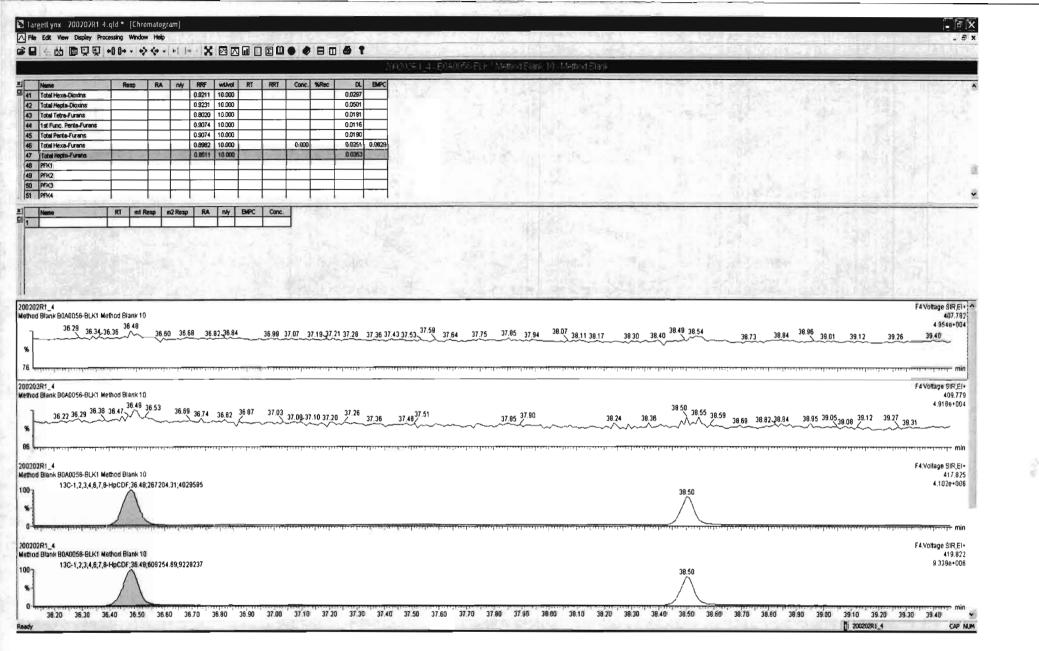
Vista Analytical Laboratory

Dataset:

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Last Altered: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time

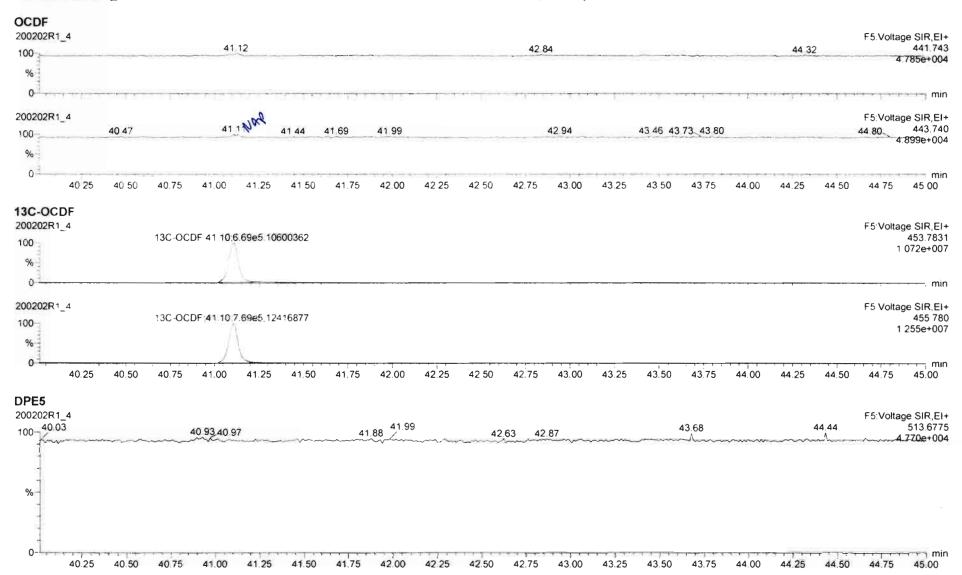


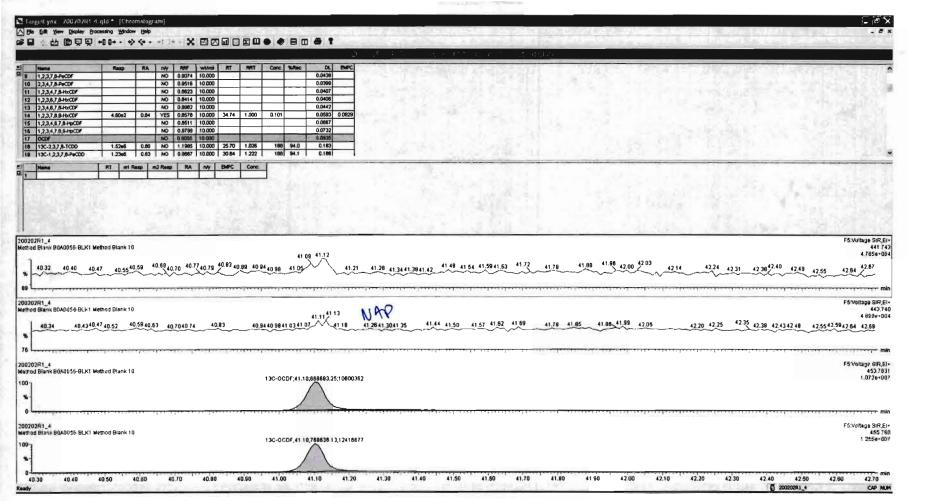


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Untitled

Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time

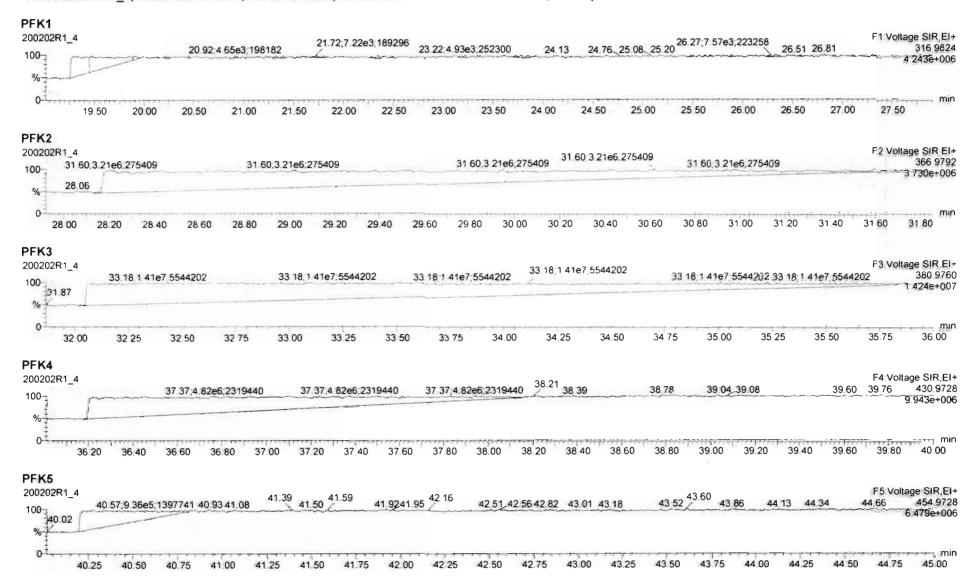




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Untitled

Last Altered: Printed: Monday, February 03, 2020 07:37:17 Pacific Standard Time Monday, February 03, 2020 07:37:41 Pacific Standard Time



U:\VG12.PRO\Results\200202R1\200202R1-2.qld

Last Altered:

Monday, February 03, 2020 07:25:09 Pacific Standard Time

Printed:

Friday, February 07, 2020 11:07:06 Pacific Standard Time

te 27.200

C7 03/13/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_2, Date: 02-Feb-2020, Time: 11:11:34, ID: B0A0056-BS1 OPR 10, Description: OPR

S THE	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	1.19e5	0.78	NO	0.988	10.000	25.736	25.72	1.001	1.001	20.075		0.0908	20.1
2	2 1,2,3,7,8-PeCDD	4.47e5	0.63	NO	0.972	10.000	30.658	30.65	1.001	1.000	98.047		0.139	98.0
3	3 1,2,3,4,7,8-HxCDD	4.12e5	1.22	NO	1.07	10.000	33.998	34.01	1.000	1.001	103.56		0.169	104
4	4 1,2,3,6,7,8-HxCDD	4.29e5	1.24	NO	0.921	10.000	34.094	34.10	1.000	1.000	106.04		0.178	106
5	5 1,2,3,7,8,9-HxCDD	3.93e5	1.23	NO	0.918	10.000	34.405	34.38	1.001	1.000	106.14		0.196	106
6	6 1,2,3,4,6,7,8-HpCDD	2.79e5	1.02	NO	0.923	10.000	37.918	37.92	1.000	1.000	102.93		0.433	103
7	7 OCDD	4.60e5	0.89	NO	0.975	10.000	40.910	40.92	1.000	1.000	195.34		0.348	195
8	8 2,3,7,8-TCDF	1.37e5	0.74	NO	0.802	10.000	24.832	24.84	1.001	1.001	21.496		0.0666	21.5
9	9 1,2,3,7,8-PeCDF	7.30e5	1.54	NO	0.907	10.000	29.391	29.39	1.001	1.000	104.05		0.164	104
10	10 2,3,4,7,8-PeCDF	7.47e5	1.51	NO	0.952	10.000	30.377	30.36	1.001	1.000	103.09		0.149	103
11	11 1,2,3,4,7,8-HxCDF	4.43e5	1.17	NO	0.862	10.000	33.125	33.13	1.000	1.000	107.69		0.236	108
12	12 1,2,3,6,7,8-HxCDF	4.97e5	1.17	NO	0.841	10.000	33.252	33.26	1.000	1.001	109.83		0.236	110
13	13 2,3,4,6,7,8-HxCDF	4.67e5	1.20	NO	0.898	10.000	33.851	33.84	1.001	1.001	108.90		0.242	109
14	14 1,2,3,7,8,9-HxCDF	3.83e5	1.15	NO	0.858	10.000	34.722	34.74	1.000	1.001	108.71		0.335	109
15	15 1,2,3,4,6,7,8-HpCDF	3.04e5	0.96	NO	0.851	10.000	36.505	36.49	1.001	1.001	108.76		0.459	109
16	16 1,2,3,4,7,8,9-HpCDF	2.50e5	0.95	NO	0.980	10.000	38.493	38.51	1.000	1.001	111.28		0.540	111
17	17 OCDF	4.76e5	0.85	NO	0.806	10.000	41.102	41.11	1.000	1.000	220.54		0.298	221
18	18 13C-2,3,7,8-TCDD	1.20e6	0.83	NO	1.20	10.000	25.706	25.70	1.026	1.026	160.99	80.5	0.174	
19	19 13C-1,2,3,7,8-PeCDD	9.37e5	0.63	NO	0.967	10.000	30.450	30.64	1.215	1.222	156.10	78.0	0.200	
20	20 13C-1,2,3,4,7,8-HxCDD	7.44e5	1.24	NO	0.874	10.000	33.988	33.99	1.014	1.014	149.69	74.8	0.282	
21	21 13C-1,2,3,6,7,8-HxCDD	8.79e5	1.26	NO	1.05	10.000	34.088	34.09	1.017	1.017	147.77	73.9	0.235	
22	22 13C-1,2,3,7,8,9-HxCDD	8.07e5	1.24	NO	0.974	10.000	34.390	34.37	1.026	1.025	145.61	72.8	0.252	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.88e5	1.06	NO	0.747	10.000	37.943	37.91	1.132	1.131	138.43	69.2	0.485	
24	24 13C-OCDD	9.66e5	0.89	NO	0.707	10.000	40.826	40.91	1.218	1.220	240.57	60.1	0.373	
25	25 13C-2,3,7,8-TCDF	1.59e6	0.77	NO	1.07	10.000	24.886	24.81	0.993	0.990	155.03	77.5	0.273	
26	26 13C-1,2,3,7,8-PeCDF	1.55e6	1.58	NO	1.00	10.000	29.222	29.37	1.166	1.172	160.74	80.4	0.407	
27	27 13C-2,3,4,7,8-PeCDF	1.52e6	1.57	NO	0.962	10.000	30.174	30.35	1.204	1.211	164.92	82.5	0.424	
28	28 13C-1,2,3,4,7,8-HxCDF	9.54e5	0.51	NO	1.05	10.000	33.116	33.13	0.988	0.988	159.91	80.0	0.388	
29	29 13C-1,2,3,6,7,8-HxCDF	1.08e6	0.51	NO	1.19	10.000	33.217	33.24	0.991	0.992	159.15	79.6	0.342	
30	30 13C-2,3,4,6,7,8-HxCDF	9.54e5	0.51	NO	1.07	10.000	33.824	33.82	1.009	1.009	157.38	78.7	0.381	
31	31 13C-1,2,3,7,8,9-HxCDF	8.21e5	0.51	NO	0.922	10.000	34.725	34.72	1.036	1.036	156.60	78.3	0.441	
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.56e5	0.44	NO	0.767	10.000	36.468	36.47	1.088	1.088	150.41	75.2	0.387	

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MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-2.qld

Last Altered:

Monday, February 03, 2020 07:25:09 Pacific Standard Time

Printed: Friday, February 07, 2020 11:07:06 Pacific Standard Time

Name: 200202R1_2, Date: 02-Feb-2020, Time: 11:11:34, ID: B0A0056-BS1 OPR 10, Description: OPR

-713	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.59e5	0.43	NO	0.552	10.000	38.479	38.49	1.148	1.148	146.27	73.1	0.538	
34	34 13C-OCDF	1.07e6	0.87	NO	0.789	10.000	41.060	41.10	1.225	1.226	238.70	59.7	0.322	
35	35 37CI-2,3,7,8-TCDD	5.26e5			1.18	10.000	25.738	25.72	1.027	1.026	71.961	90.0	0.0427	
36	36 13C-1,2,3,4-TCDD	1.24e6	0.80	NO	1.00	10.000	25.080	25.06	1.000	1.000	200.00	100	0.209	
37	37 13C-1,2,3,4-TCDF	1.92e6	0.79	NO	1.00	10.000	23.420	23.39	1.000	1.000	200.00	100	0.291	
38	38 13C-1,2,3,4,6,9-HxCDF	1.14e6	0.51	NO	1.00	10.000	33.520	33.52	1.000	1.000	200.00	100	0.407	

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Page 1 of 13

Dataset:

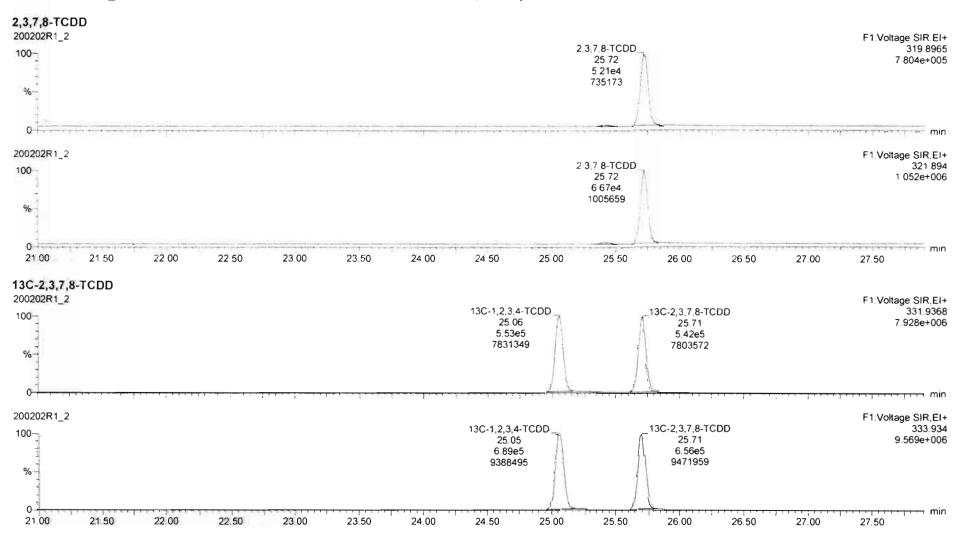
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Last Altered: Printed: Monday, February 03, 2020 07:25:09 Pacific Standard Time Monday, February 03, 2020 07:29:59 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

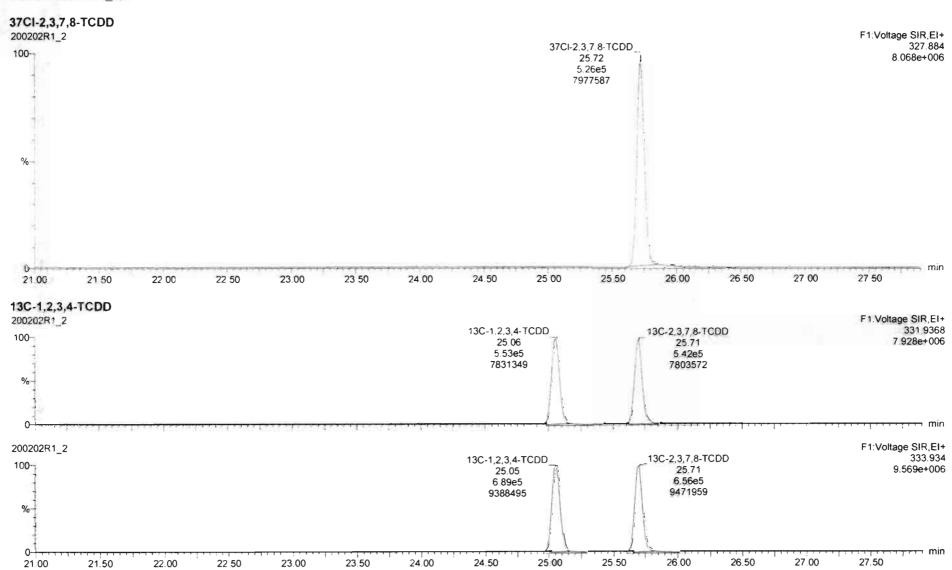
Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_2, Date: 02-Feb-2020, Time: 11:11:34, ID: B0A0056-BS1 OPR 10, Description: OPR



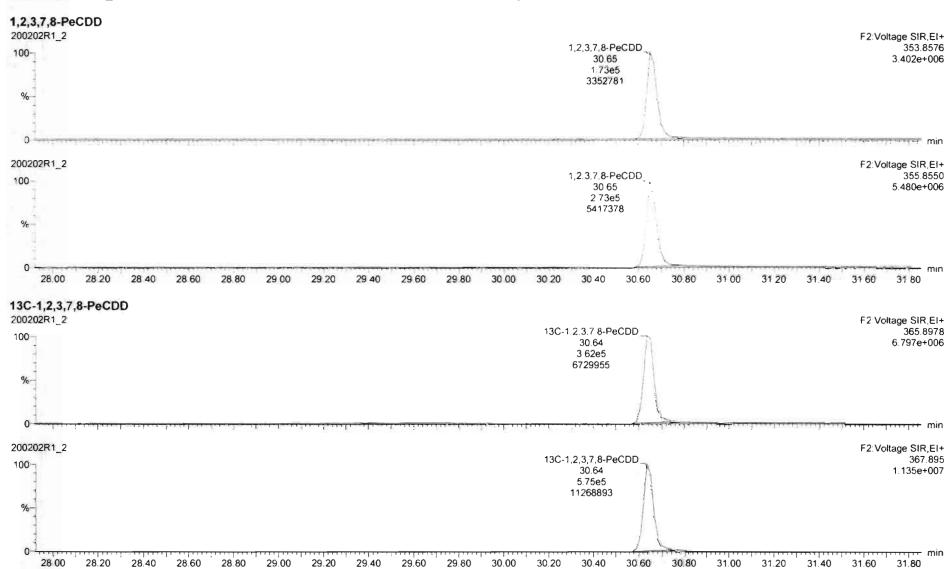
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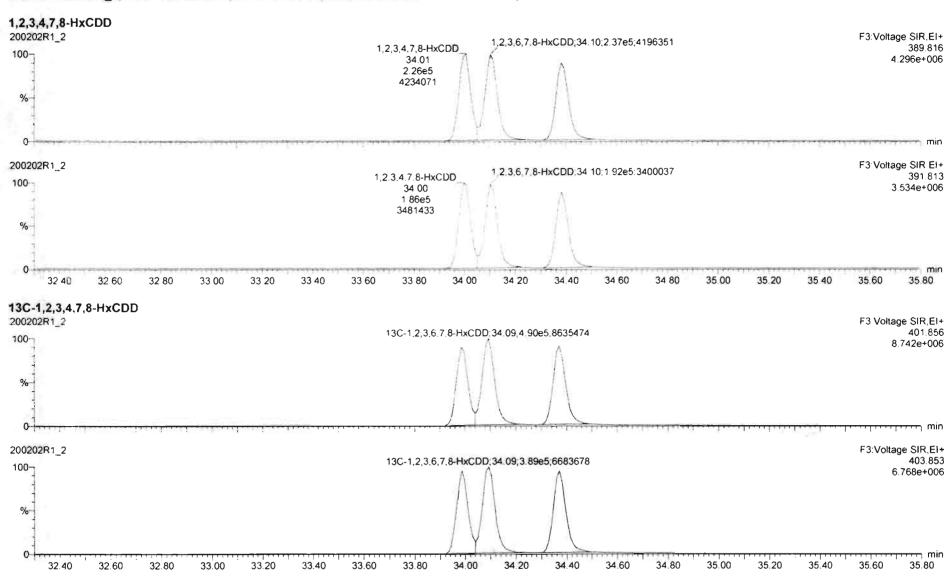
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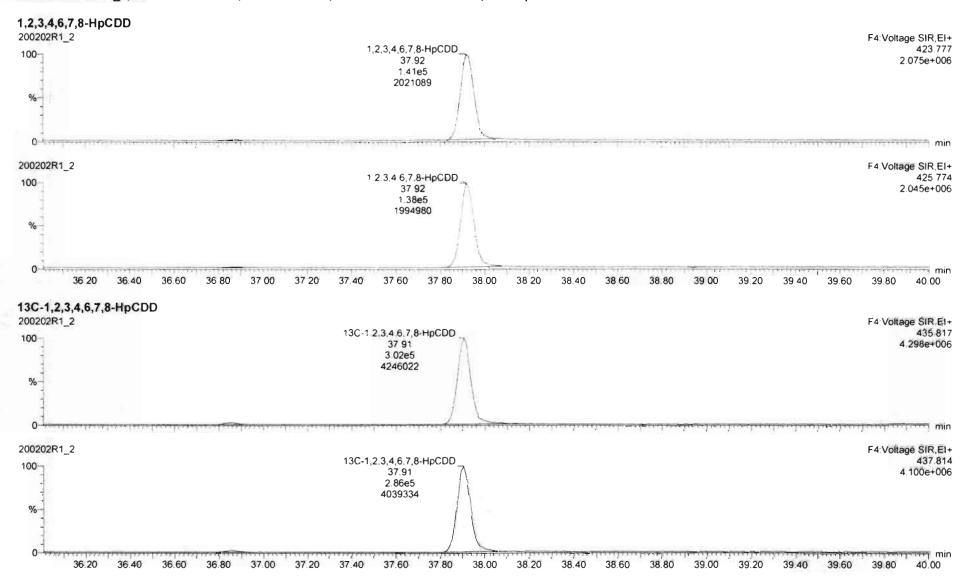
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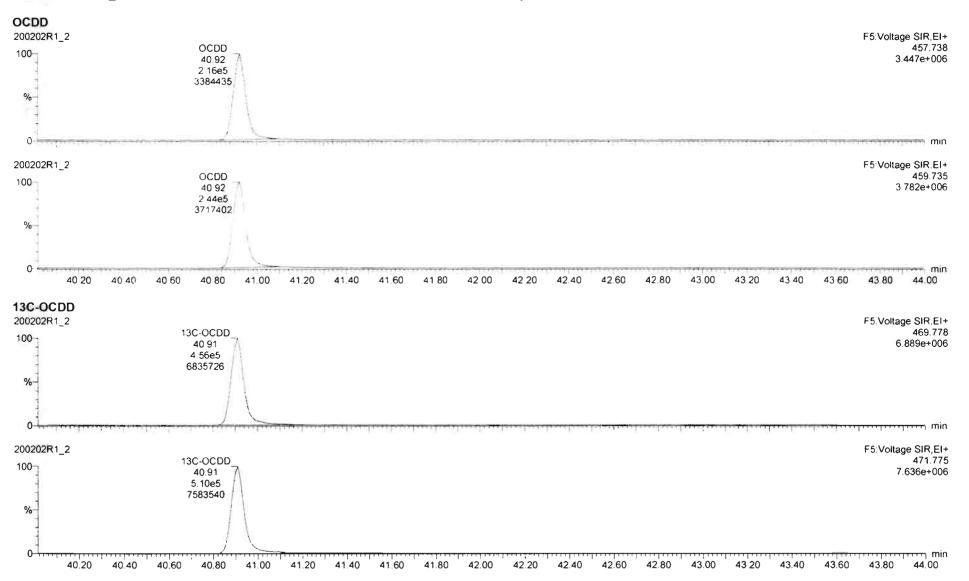
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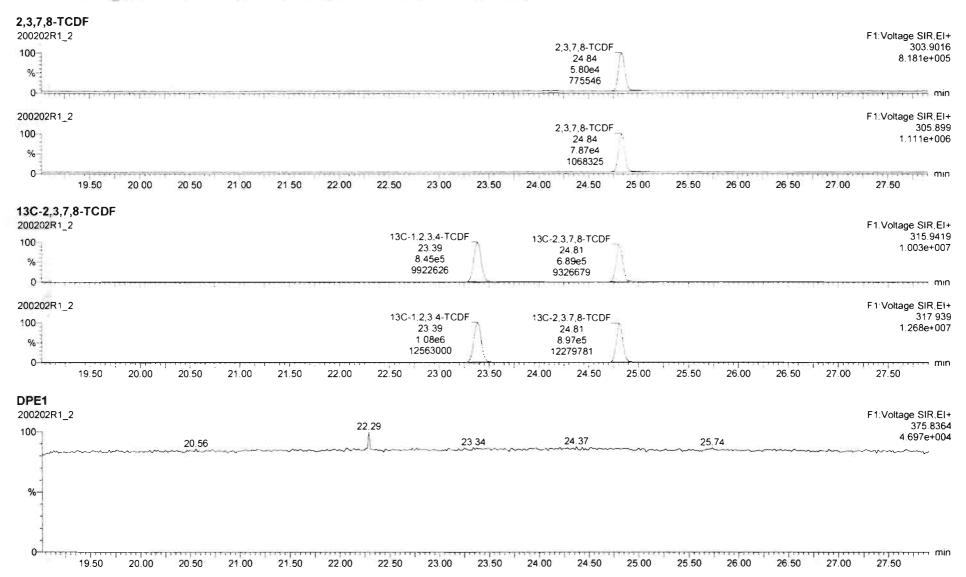
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Monday, February 03, 2020 07:25:09 Pacific Standard Time Monday, February 03, 2020 07:29:59 Pacific Standard Time



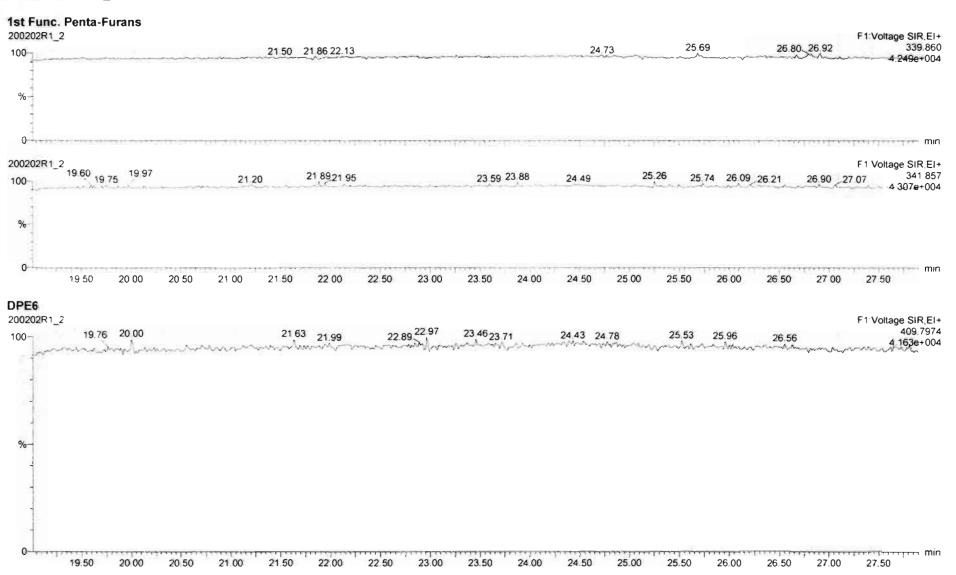
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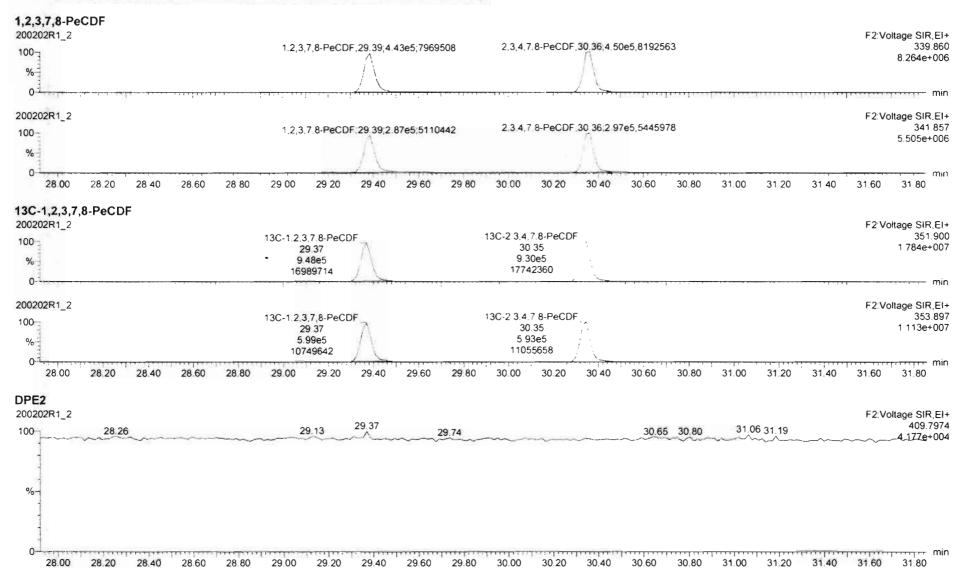
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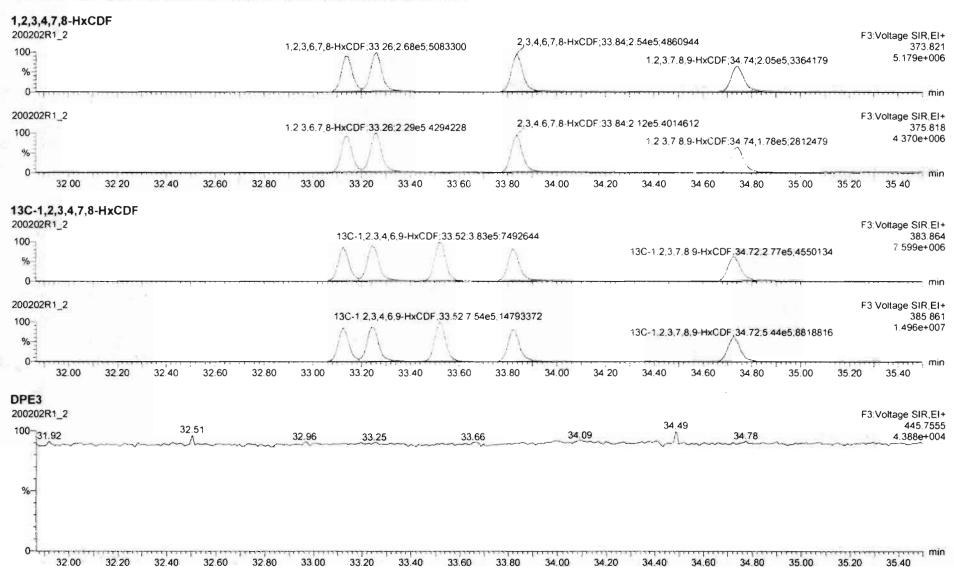
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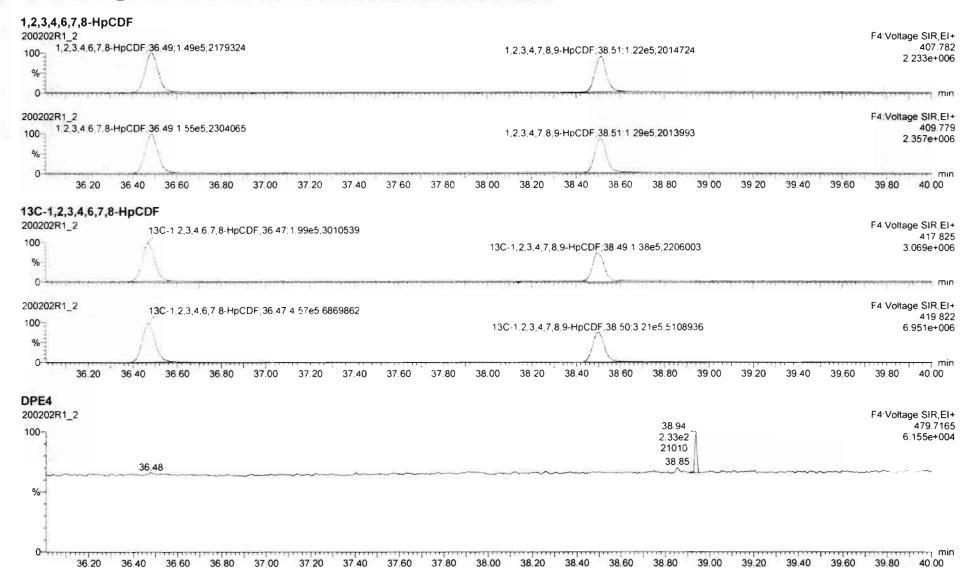
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Monday, February 03, 2020 07:25:09 Pacific Standard Time Monday, February 03, 2020 07:29:59 Pacific Standard Time



Untitled

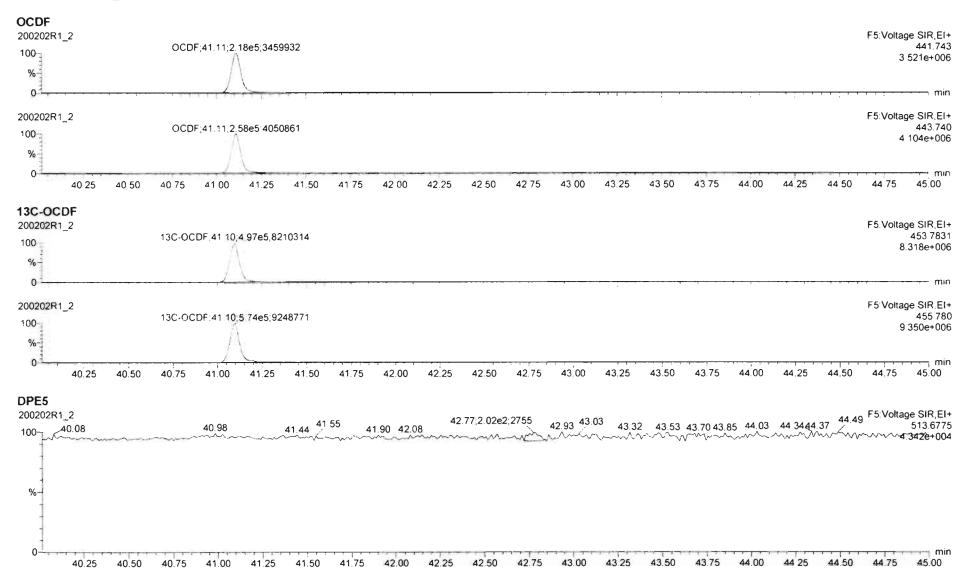
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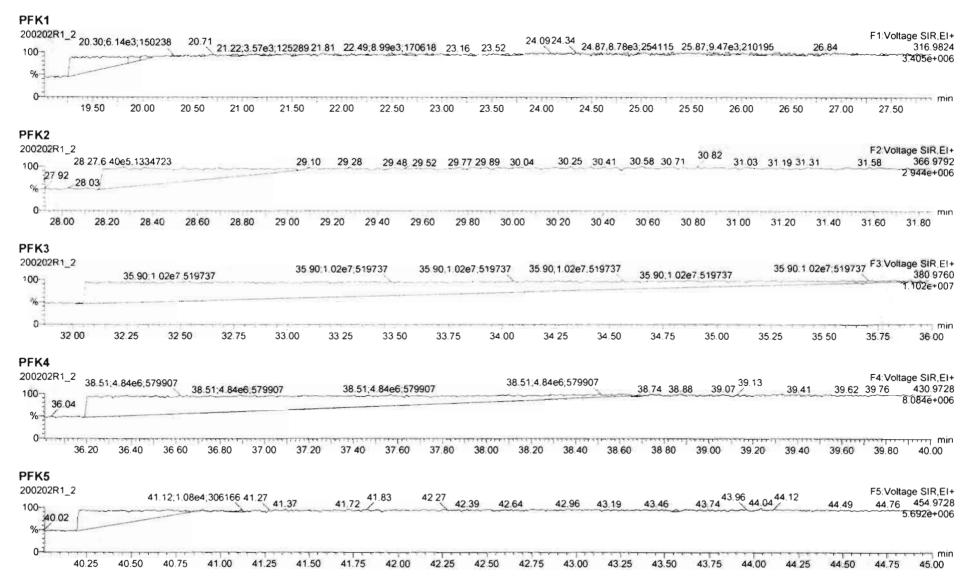
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Last Altered: Printed: Monday, February 03, 2020 07:25:09 Pacific Standard Time Monday, February 03, 2020 07:29:59 Pacific Standard Time



Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200318R1\200318R1-8.qld

Last Altered:

Thursday, March 19, 2020 12:07:51 PM Pacific Daylight Time

Printed:

Thursday, March 19, 2020 12:12:00 PM Pacific Daylight Time

GRB 03/19/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R1_8, Date: 18-Mar-2020, Time: 21:02:47, ID: B0C0209-BLK1 Method Blank 10, Description: Method Blank

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.983	10.000	- 25.781		1.001				0.0922	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.000	31.071		1.001				0.0728	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.000	34.459		1.000				0.0698	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.000	34.555		1.000				0.0693	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.000	34.831		1.000				0.0799	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	10.000	38.251		1.000				0.130	
7	7 OCDD	6.44e2	0.84	NO	1.05	10.000	41.308	41.31	1.000	1.000	0.45142		0.220	0.451
8	8 2,3,7,8-TCDF			NO	0.915	10.000	24.772		1.001				0.0540	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.000	29.727		1.001				0.0445	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.000	30.759		1.001				0.0429	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.000	33.607		1.000				0.0414	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.000	33.734		1.000				0.0401	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.000	34.323		1.001				0.0398	
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.000	35.162		1.000				0.0574	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.000	36.882		1.001				0.0613	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.000	38.901		1.000				0.0772	
17	17 OCDF			NO	0.947	10.000	41.489		1.000				0.144	
18	18 13C-2,3,7,8-TCDD	6.98e5	0.77	NO	1.18	10.000	25.750	25.75	1.029	1.029	159.97	80.0	0.351	
19	19 13C-1,2,3,7,8-PeCDD	5.37e5	0.63	NO	0.864	10.000	30.937	31.05	_1.236	1.240	168.74	84.4	0.312	
20	20 13C-1,2,3,4,7,8-HxCDD	3.88e5	1.27	NO	0.754	10.000	34.463	34.45	1.014	1.013	143.25	71.6	0.420	
21	21 13C-1,2,3,6,7,8-HxCDD	4.67e5	1.27	NO	0.925	10.000	34.572	34.56	1.017	1.017	140.60	70.3	0.342	
22	22 13C-1,2,3,7,8,9-HxCDD	4.28e5	1.26	NO	0.829	10.000	34.834	34.82	1.025	1.024	143.93	72.0	0.382	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.29e5	1.07	NO	0.598	10.000	38.294	38.24	1.127	1.125	153.13	76.6	0.389	
24	24 13C-OCDD	5.43e5	0.91	NO	0.571	10.000	41.445	41.31	1.219	1.215	264.85	66.2	0.413	
25	25 13C-2,3,7,8-TCDF	9.44e5	0.77	NO	1.09	10.000	24.772	24.75	0.990	0.989	142.57	71.3	0.450	
26	26 13C-1,2,3,7,8-PeCDF	7.97e5	1.56	NO	0.876	10.000	29.608	29.71	1.183	1.187	149.57	74.8	0.614	
27	27 13C-2,3,4,7,8-PeCDF	7.58e5	1.55	NO	0.844	10.000	30.619	30.73	1.223	1.228	147.89	73.9	0.638	
28	28 13C-1,2,3,4,7,8-HxCDF	5.66e5	0.51	NO	1.00	10.000	33.610	33.61	0.989	0.989	157.71	78.9	0.385	
29	29 13C-1,2,3,6,7,8-HxCDF	6.28e5	0.52	NO	1.12	10.000	33.719	33.72	0.992	0.992	156.68	78.3	0.344	
30	30 13C-2,3,4,6,7,8-HxCDF	5.76e5	0.52	NO	1.04	10.000	34.300	34.29	1.009	1.009	155.14	77.6	0.372	
31	31 13C-1,2,3,7,8,9-HxCDF	4.75e5	0.52	NO	0.873	10.000	35.174	35.16	1.035	1.034	151.73	75.9	0.441	

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U:\VG12.PRO\Results\200318R1\200318R1-8.qld

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Thursday, March 19, 2020 12:07:51 PM Pacific Daylight Time Thursday, March 19, 2020 12:12:00 PM Pacific Daylight Time

Name: 200318R1_8, Date: 18-Mar-2020, Time: 21:02:47, ID: B0C0209-BLK1 Method Blank 10, Description: Method Blank

1000	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	4.11e5	0.43	NO	0.771	10.000	36.890	36.85	1.085	1.084	148.51	74.3	0.420	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.87e5	0.44	NO	0.519	10.000	38.977	38.90	1.147	1.144	154.03	77.0	0.624	
34	34 13C-OCDF	6.81e5	0.88	NO	0.696	10.000	41.625	41.49	1.225	1.221	272.45	68.1	0.342	
35	35 37CI-2,3,7,8-TCDD	2.68e5			1.17	10.000	25.760	25.78	1.029	1.030	61.852	77.3	0.0484	[
36	36 13C-1,2,3,4-TCDD	7.37e5	0.79	NO	1.00	10.000	25.050	25.03	1.000	1.000	200.00	100	0.416	
37	37 13C-1,2,3,4-TCDF	1.22e6	0.80	NO	1.00	10.000	23.190	23.09	1.000	1.000	200.00	100	0.490	
38	38 13C-1,2,3,4,6,9-HxCDF	7.18e5	0.51	NO	1.00	10.000	33.880	33.99	1.000	1.000	200.00	100	0.385	[
39	39 Total Tetra-Dioxins				0.983	10.000	24.620		0.000				0.0565	
40	40 Total Penta-Dioxins				0.921	10.000	29.960		0.000				0.0336	- 1
41	41 Total Hexa-Dioxins				0.984	10.000	33.635		0.000				0.0403	
42	42 Total Hepta-Dioxins				1.01	10.000	37.640		0.000				0.0775	
43	43 Total Tetra-Furans				0.915	10.000	23.610		0.000				0.0239	1
44	44 1st Func. Penta-Furans				0.959	10.000	27.090		0.000				0.0112	
45	45 Total Penta-Furans				0.959	10.000	29.275		0.000				0.0184	
46	46 Total Hexa-Furans				1.09	10.000	33.555		0.000				0.0227	
47	47 Total Hepta-Furans				1.05	10.000	37.835		0.000				0.0352	

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200318R1\200318R1-8.qld

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Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R1_8, Date: 18-Mar-2020, Time: 21:02:47, ID: B0C0209-BLK1 Method Blank 10, Description: Method Blank

Tetra-Dioxins

The state of the s	Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1											

Penta-Dioxins

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1									-

Hexa-Dioxins

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1										

Hepta-Dioxins

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1					2410		1110 250		Transfer to Alberta	

Tetra-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Reup	Conc.	EMPC	1DL
1								

Penta-Furans function 1

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Flesp	Conc.	EMPC	DL
1										

Page 2 of 2

Vista Analytical Laboratory

Dataset:

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Name: 200318R1_8, Date: 18-Mar-2020, Time: 21:02:47, ID: B0C0209-BLK1 Method Blank 10, Description: Method Blank

Penta-Furans

ELIS .	Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1										

Hexa-Furans

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL.
1										

Hepta-Furans

Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Coric.	EMPC	DL
1										

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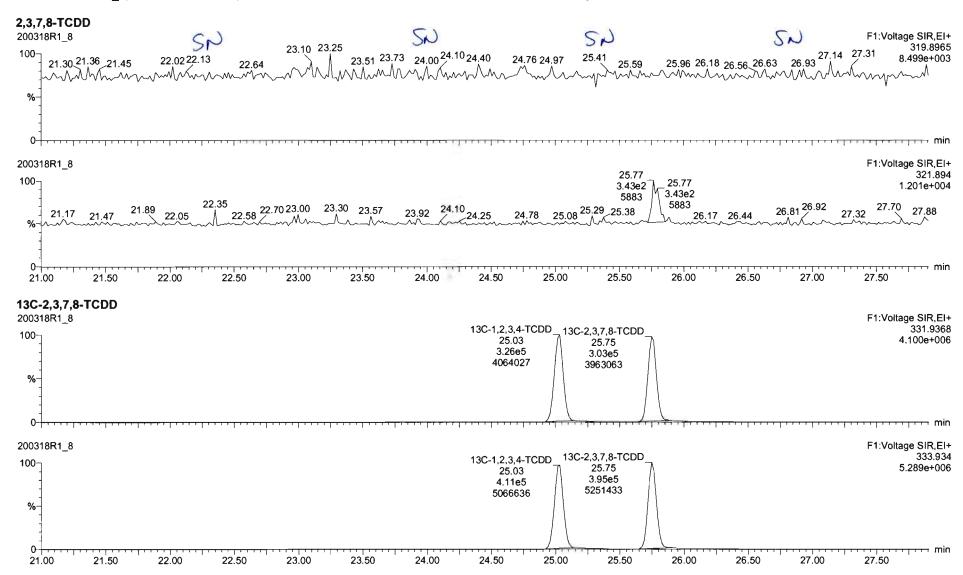
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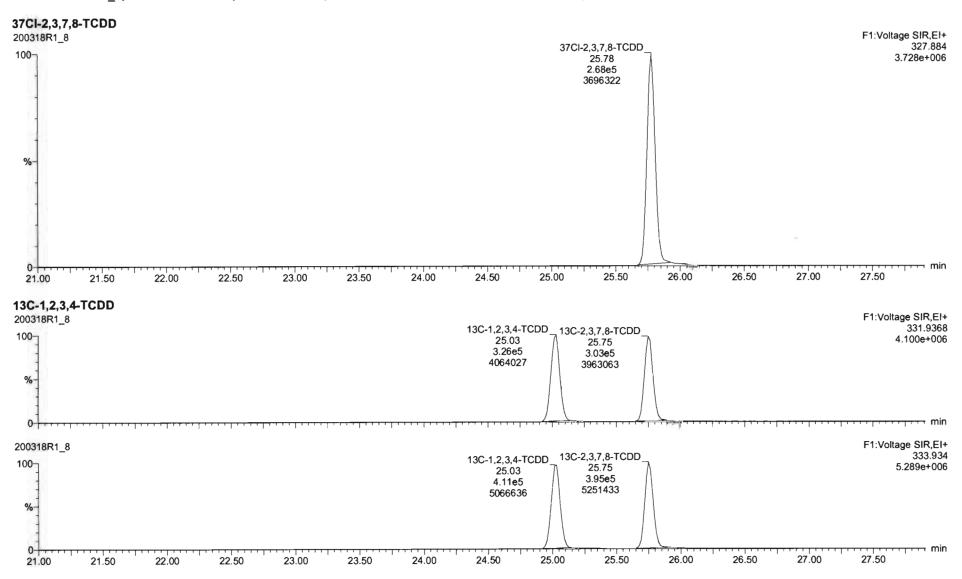
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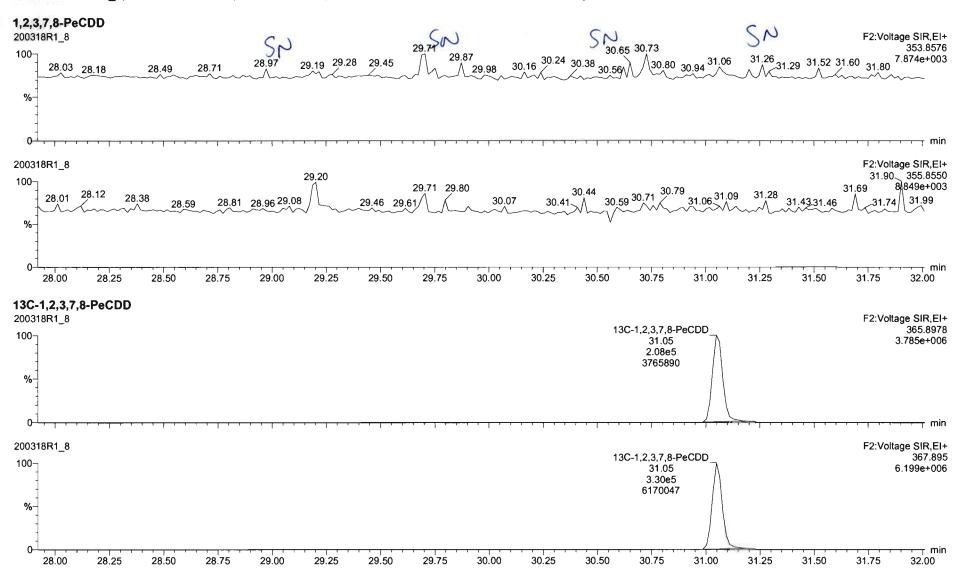
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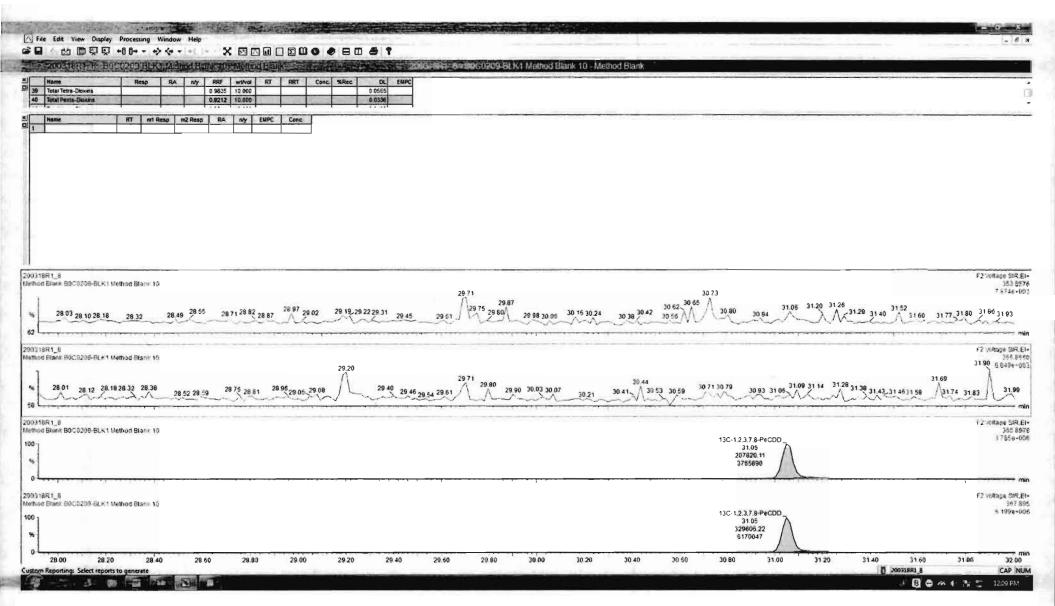


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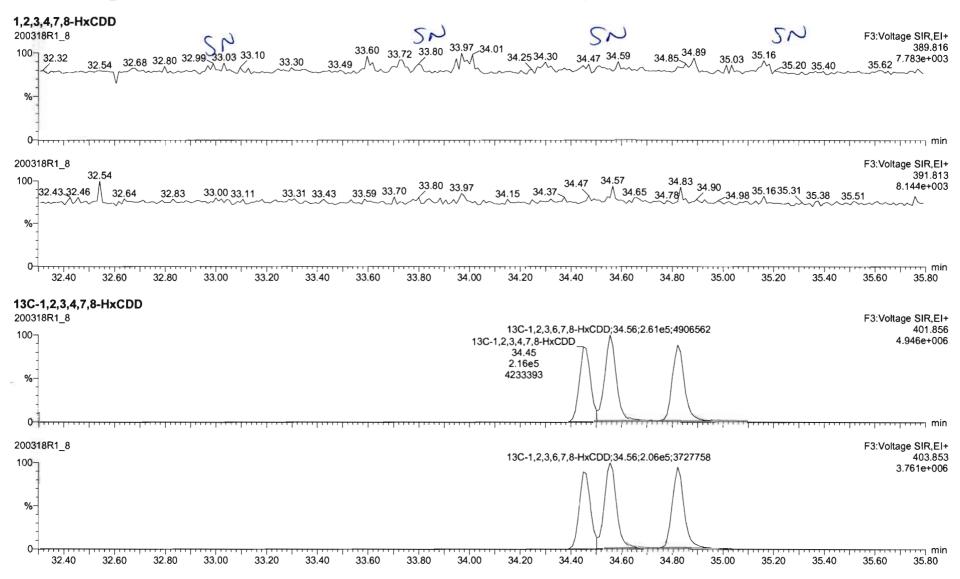
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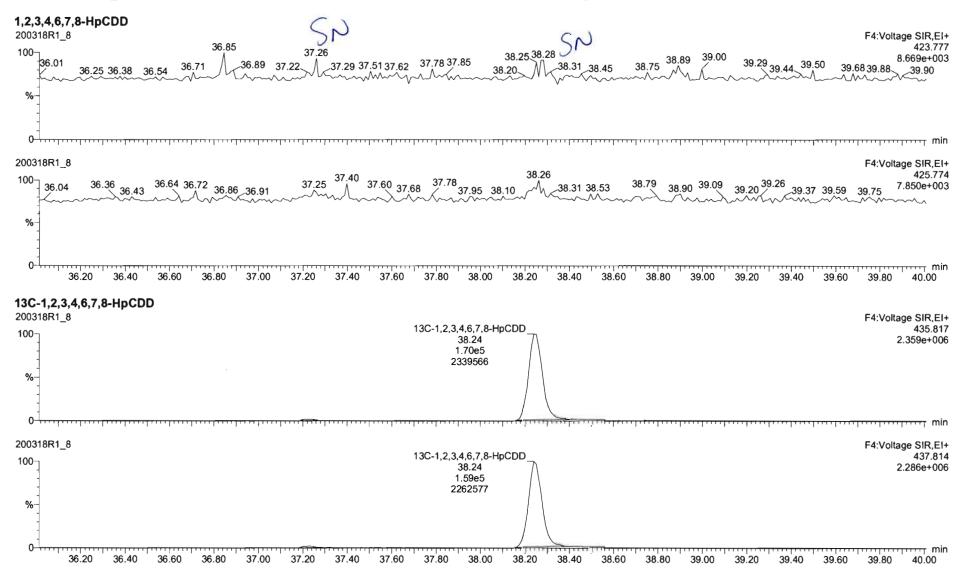
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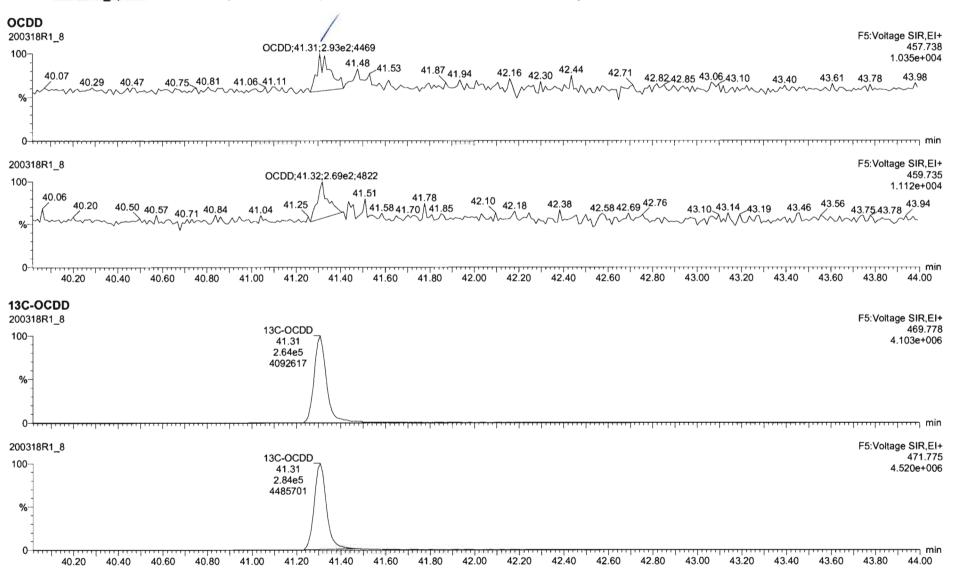
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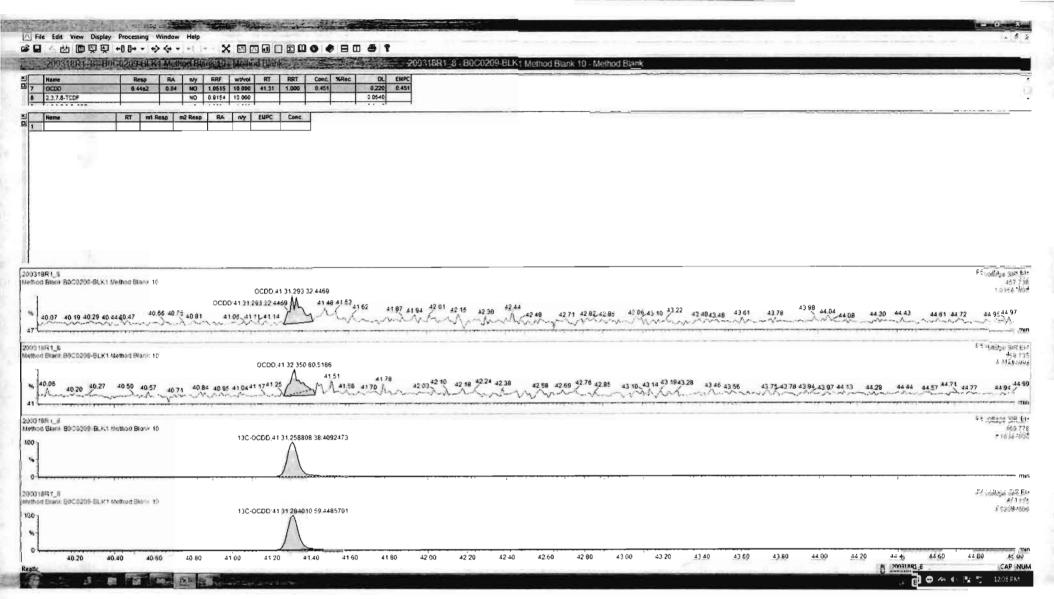


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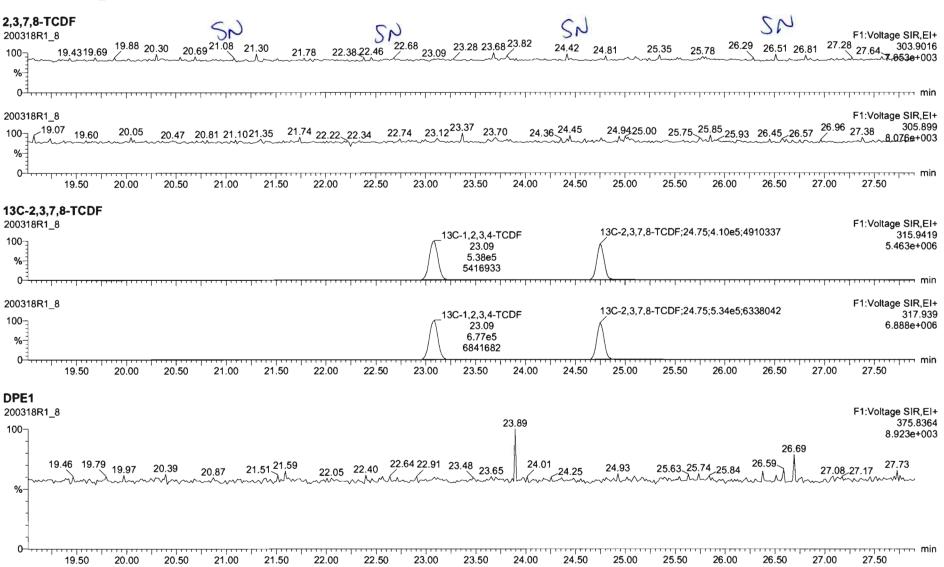


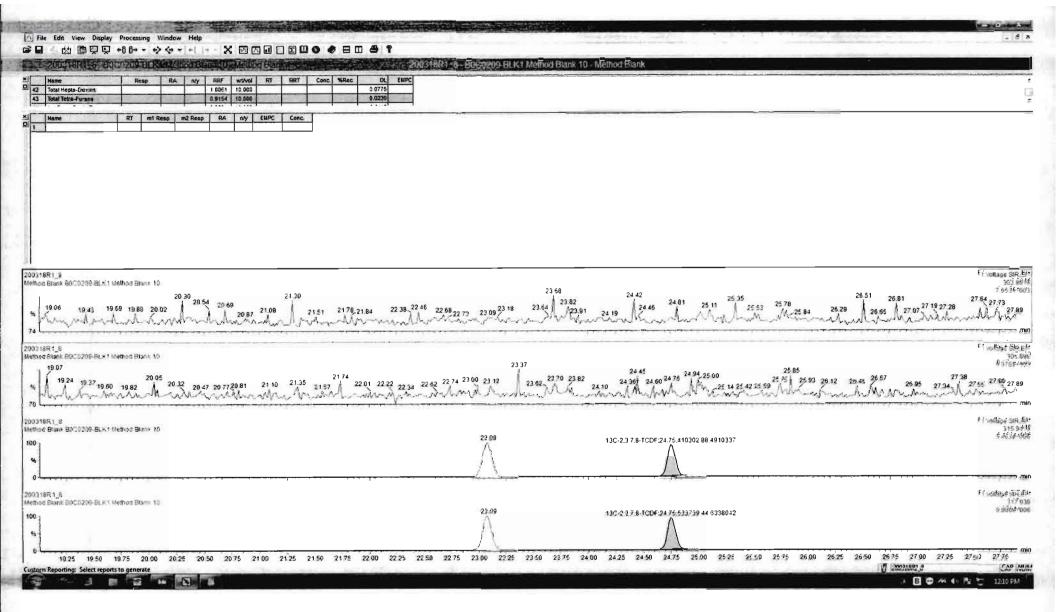


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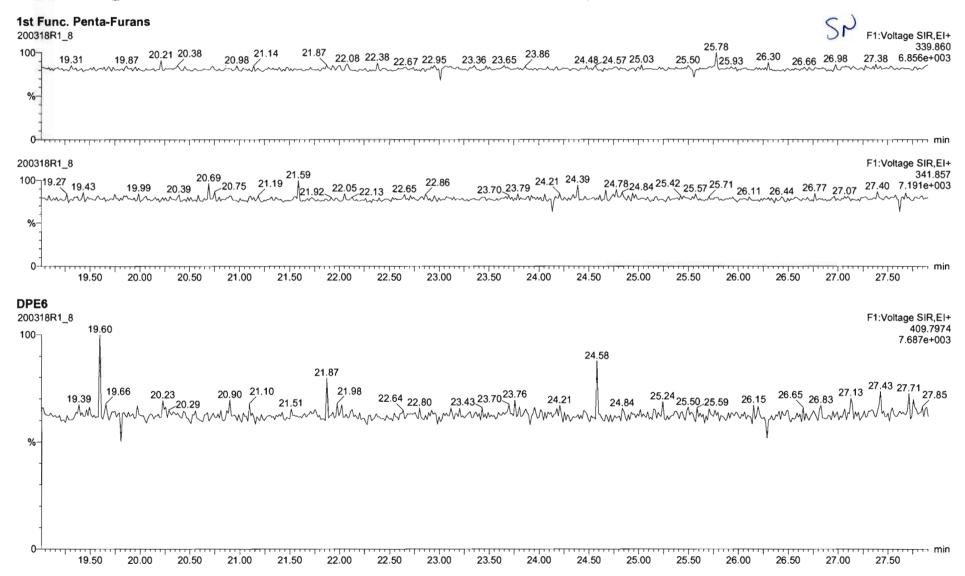




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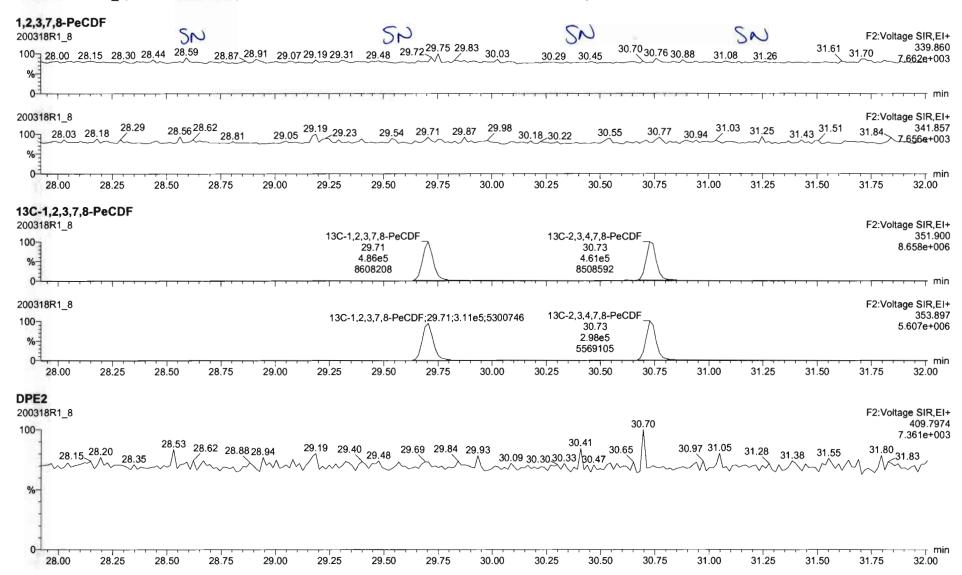
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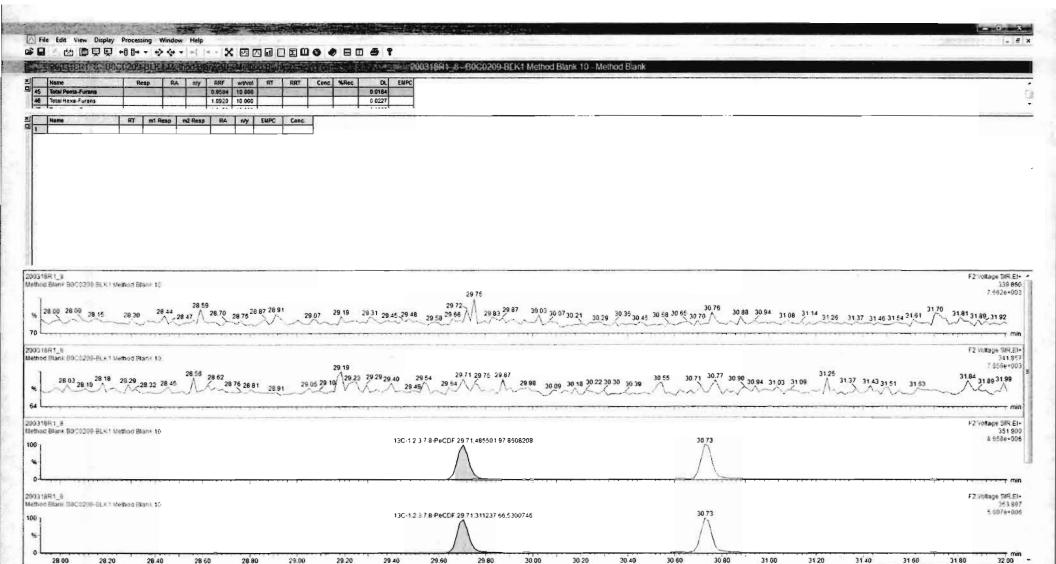
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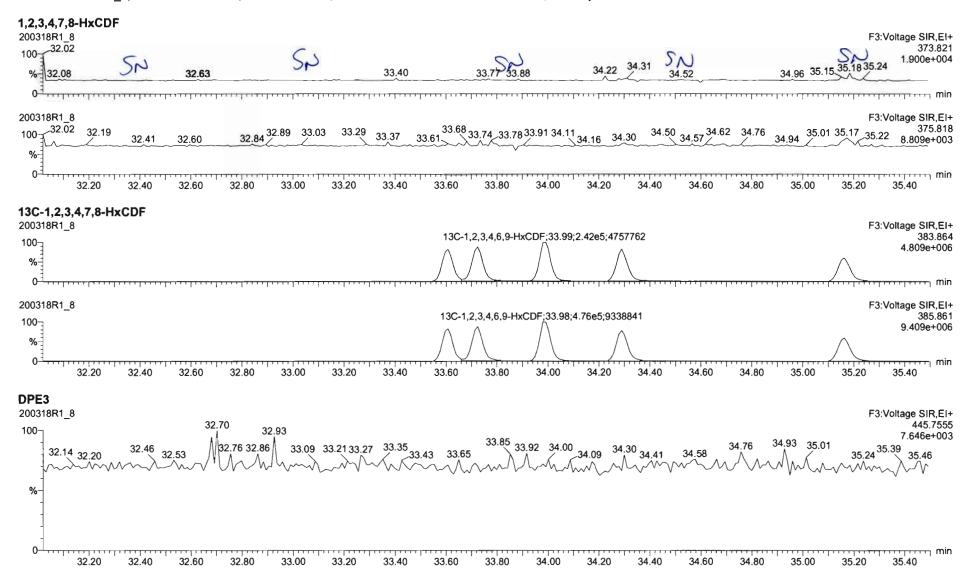
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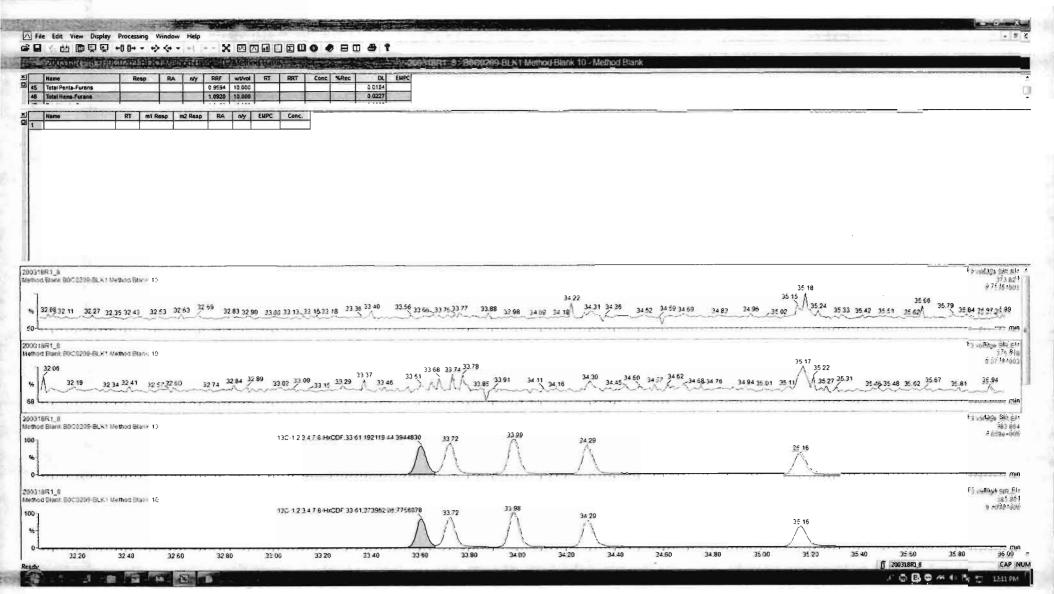
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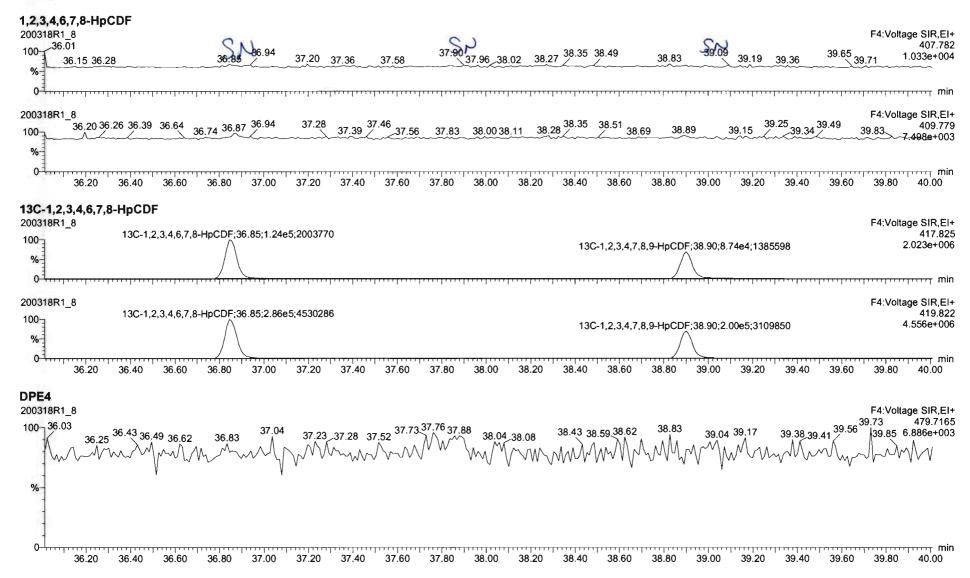




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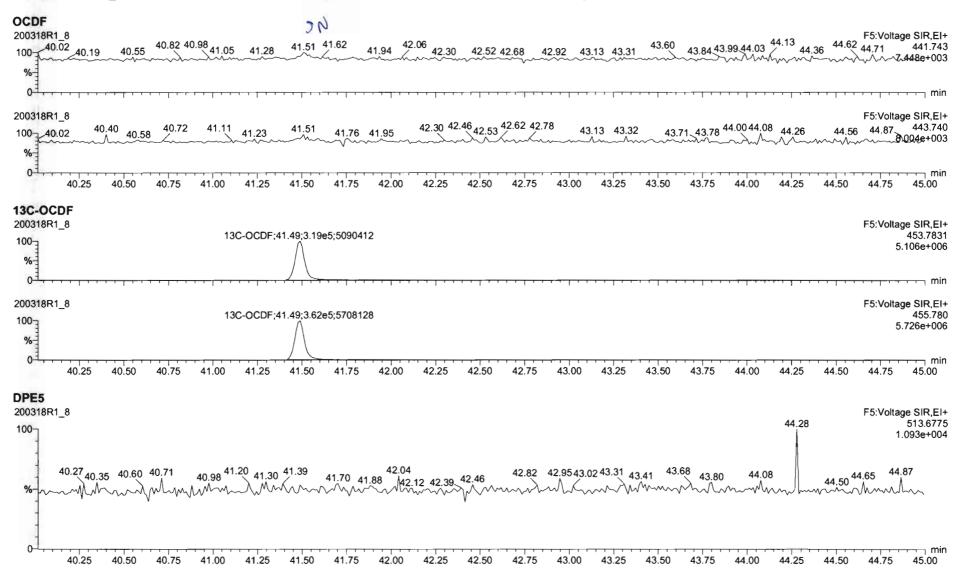
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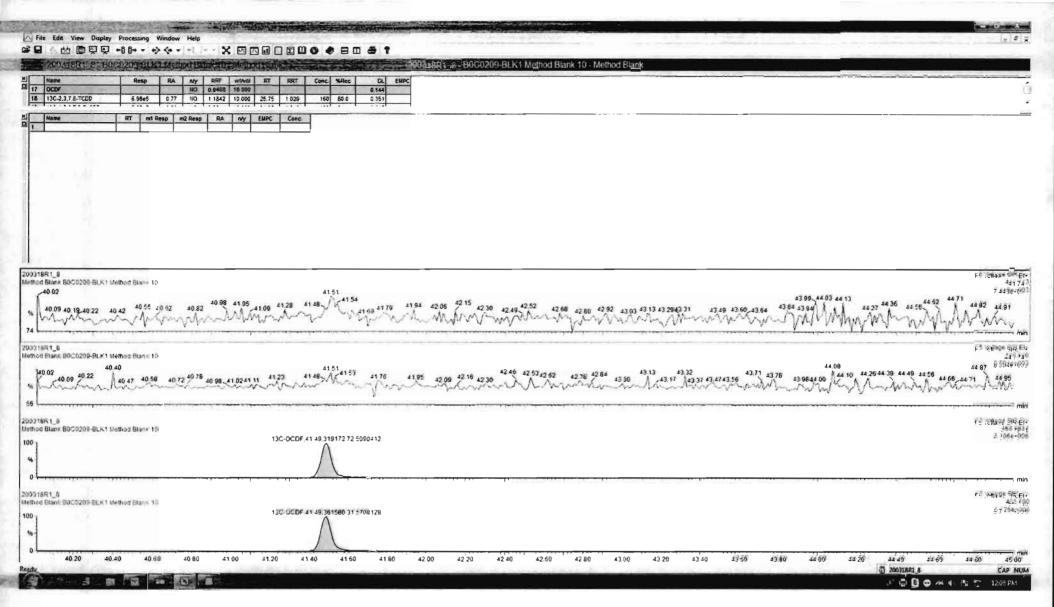
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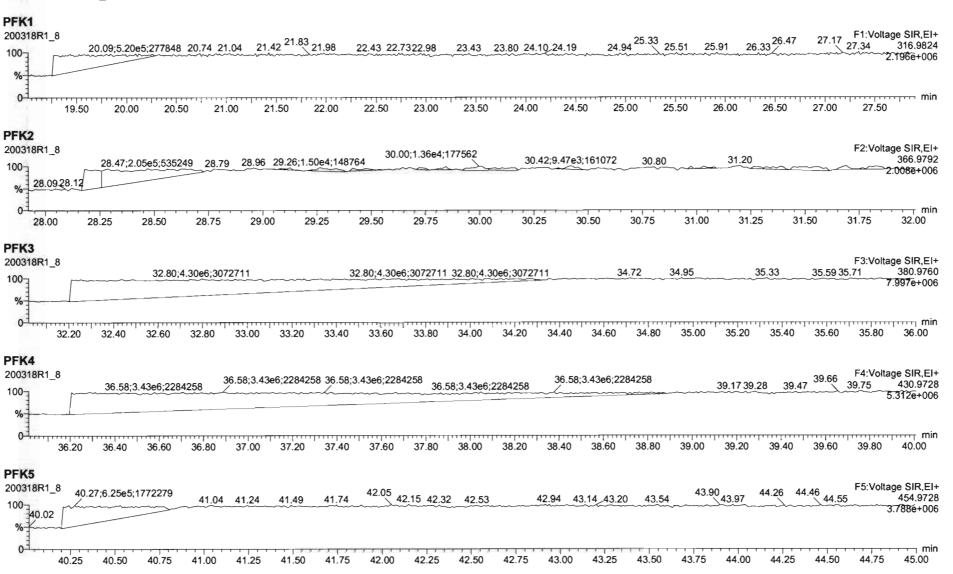
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Thursday, March 19, 2020 12:14:39 PM Pacific Daylight Time

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Thursday, March 19, 2020 12:15:24 PM Pacific Daylight Time

GRB_03/19/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R1_4, Date: 18-Mar-2020, Time: 17:52:09, ID: B0C0209-BS1 OPR 10, Description: OPR

1000	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	6.77e4	0.75	NO	0.983	10.000	25.796	25.80	1.001	1.001	17.168		0.0925	17.2
2	2 1,2,3,7,8-PeCDD	2.81e5	0.62	NO	0.921	10.000	31.086	31.08	1.001	1.000	90.745		0.161	90.7
3	3 1,2,3,4,7,8-HxCDD	2.71e5	1.25	NO	1.13	10.000	34.469	34.48	1.000	1.001	92.825		0.179	92.8
4	4 1,2,3,6,7,8-HxCDD	2.86e5	1.25	NO	0.984	10.000	34.566	34.58	1.000	1.000	93.445		0.183	93.4
5	5 1,2,3,7,8,9-HxCDD	2.68e5	1.26	NO	0.967	10.000	34.842	34.84	1.000	1.000	94.712		0.206	94.7
6	6 1,2,3,4,6,7,8-HpCDD	2.12e5	1.06	NO	1.01	10.000	38.262	38.27	1.000	1.001	92.696		0.344	92.7
7	7 OCDD	3.40e5	0.90	NO	1.05	10.000	41.308	41.32	1.000	1.000	175.72		0.229	176
8	8 2,3,7,8-TCDF	8.72e4	0.77	NO	0.915	10.000	24.787	24.79	1.001	1.001	18.040		0.0665	18.0
9	9 1,2,3,7,8-PeCDF	4.25e5	1.62	NO	0.959	10.000	29.727	29.72	1.001	1.001	92.678		0.173	92.7
10	10 2,3,4,7,8-PeCDF	4.36e5	1.57	NO	1.00	10.000	30.774	30.76	1.001	1.001	93.250		0.154	93.3
11	11 1,2,3,4,7,8-HxCDF	3.44e5	1.24	NO	1.04	10.000	33.618	33.63	1.000	1.000	92.883		0.196	92.9
12	12 1,2,3,6,7,8-HxCDF	3.91e5	1.22	NO	1.01	10.000	33.745	33.75	1.000	1.000	95.523		0.188	95.5
13	13 2,3,4,6,7,8-HxCDF	3.82e5	1.23	NO	1.09	10.000	34.334	34.31	1.001	1.000	93.280		0.188	93.3
14	14 1,2,3,7,8,9-HxCDF	3.01e5	1.22	NO	1.03	10.000	35.173	35.18	1.000	1.000	90.590		0.257	90.6
15	15 1,2,3,4,6,7,8-HpCDF	2.74e5	1.01	NO	1.05	10.000	36.904	36.88	1.001	1.000	89.843		0.242	89.8
16	16 1,2,3,4,7,8,9-HpCDF	2.17e5	1.02	NO	1.21	10.000	38.901	38.92	1.000	1.001	91.027		0.326	91.0
17	17 OCDF	4.04e5	0.89	NO	0.947	10.000	41.489	41.50	1.000	1.000	186.19		0.216	186
18	18 13C-2,3,7,8-TCDD	8.02e5	0.78	NO	1.18	10.000	25.766	25.76	1.029	1.029	154.74	77.4	0.264	
19	19 13C-1,2,3,7,8-PeCDD	6.73e5	0.63	NO	0.864	10.000	30.956	31.06	1.236	1.240	177.92	89.0	0.282	
20	20 13C-1,2,3,4,7,8-HxCDD	5.16e5	1.28	NO	0.754	10.000	34.474	34.46	1.014	1.013	155.78	77.9	0.279	
21	21 13C-1,2,3,6,7,8-HxCDD	6.21e5	1.27	NO	0.925	10.000	34.582	34.57	1.017	1.017	152.88	76.4	0.227	
22	22 13C-1,2,3,7,8,9-HxCDD	5.85e5	1.25	NO	0.829	10.000	34.844	34.83	1.025	1.024	160.57	80.3	0.253	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.54e5	1.05	NO	0.598	10.000	38.306	38.25	1.127	1.125	172.69	86.3	0.489	
24	24 13C-OCDD	7.35e5	0.87	NO	0.571	10.000	41.457	41.31	1.219	1.215	293.13	73.3	0.377	
25	25 13C-2,3,7,8-TCDF	1.06e6	0.78	NO	1.09	10.000	24.787	24.76	0.990	0.989	131.53	65.8	0.394	
26	26 13C-1,2,3,7,8-PeCDF	9.56e5	1.56	NO	0.876	10.000	29.626	29.71	1.183	1.186	148.09	74.0	0.398	1
27	27 13C-2,3,4,7,8-PeCDF	9.32e5	1.58	NO	0.844	10.000	30.637	30.74	1.223	1.227	149.94	75.0	0.414	ŀ
28	28 13C-1,2,3,4,7,8-HxCDF	7.13e5	0.51	NO	1.00	10.000	33.620	33.62	0.989	0.989	162.33	81.2	0.419	
29	29 13C-1,2,3,6,7,8-HxCDF	8.08e5	0.53	NO	1.12	10.000	33.729	33.74	0.992	0.992	164.48	82.2	0.375	
30	30 13C-2,3,4,6,7,8-HxCDF	7.50e5	0.52	NO	1.04	10.000	34.310	34.30	1.009	1.009	165.01	82.5	0.405	
31	31 13C-1,2,3,7,8,9-HxCDF	6.47e5	0.52	NO	0.873	10. 0 00	35.184	35.17	1.035	1.034	168.79	84.4	0.480	

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Thursday, March 19, 2020 12:15:24 PM Pacific Daylight Time

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5-40	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.83e5	0.44	NO	0.771	10.000	36.901	36.87	1.085	1.084	172.10	86.0	0.350	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.94e5	0.45	NO	0.519	10.000	38.989	38.90	1.147	1.144	172.76	86.4	0.520	
34	34 13C-OCDF	9.16e5	0.89	NO	0.696	10.000	41.638	41.49	1.225	1.220	299.43	74.9	0.254	
35	35 37Cl-2,3,7,8-TCDD	2.95e5			1.17	10.000	25.776	25.80	1.029	1.030	57.308	71.6	0.0511	
36	36 13C-1,2,3,4-TCDD	8.75e5	0.80	NO	1.00	10.000	25.050	25.05	1.000	1.000	200.00	100	0.313	
37	37 13C-1,2,3,4-TCDF	1.47e6	0.78	NO	1.00	10.000	23.190	23.10	1.000	1.000	200.00	100	0.430	
38	38 13C-1,2,3,4,6,9-HxCDF	8.79e5	0.52	NO	1.00	10.000	33.880	34.00	1.000	1.000	200.00	100	0.419	

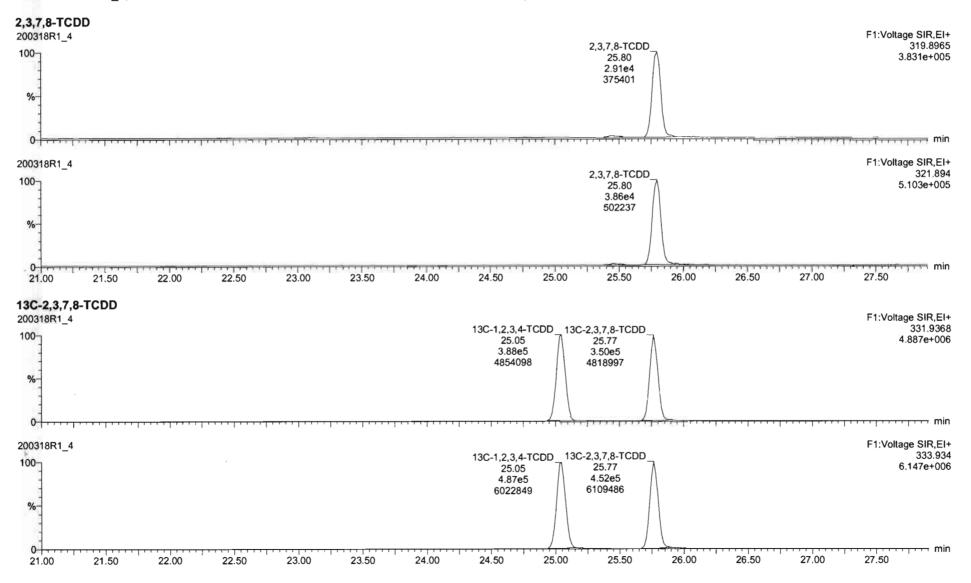
Work Order 1903654 Page 109 of 1184

Quantify Sample Report Vista Analytical Laboratory

Dataset:

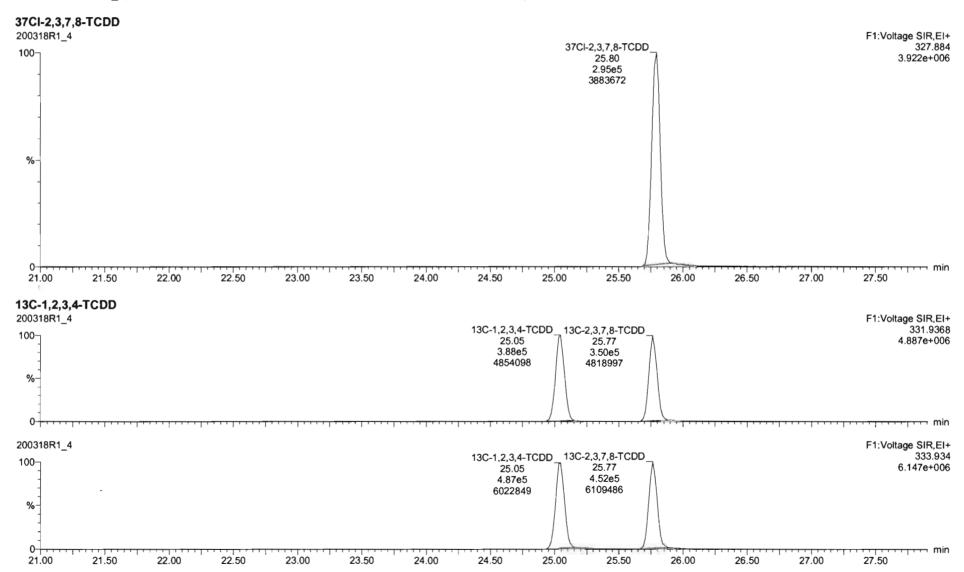
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Last Altered: Thursday, March 19, 2020 07:31:38 Pacific Daylight Time Thursday, March 19, 2020 07:32:25 Pacific Daylight Time



Untitled

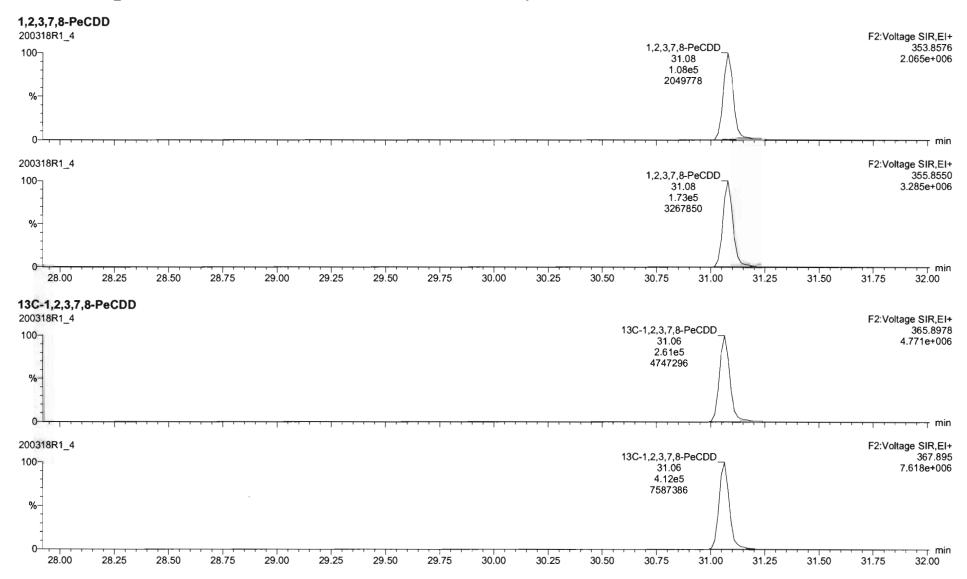
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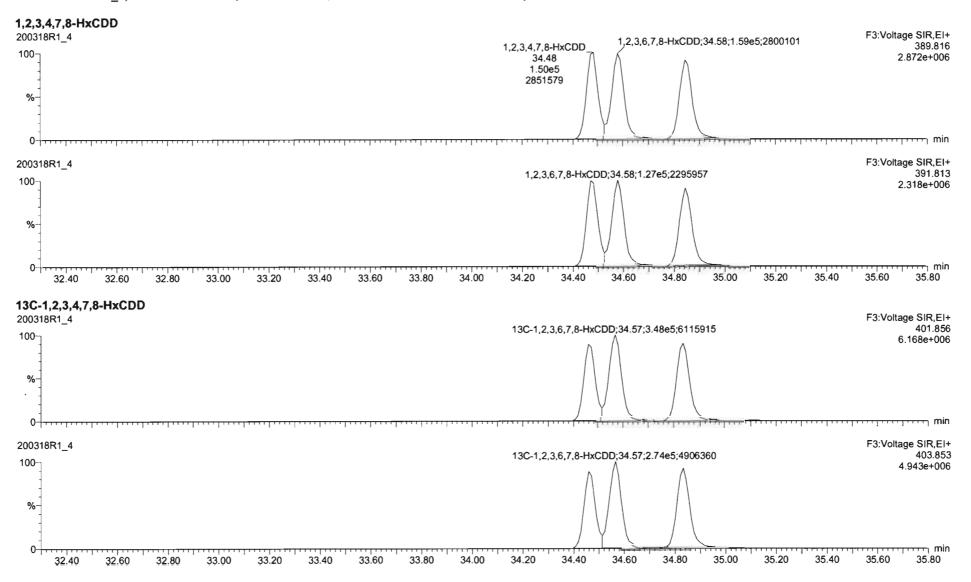
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Thursday, March 19, 2020 07:31:38 Pacific Daylight Time Thursday, March 19, 2020 07:32:25 Pacific Daylight Time



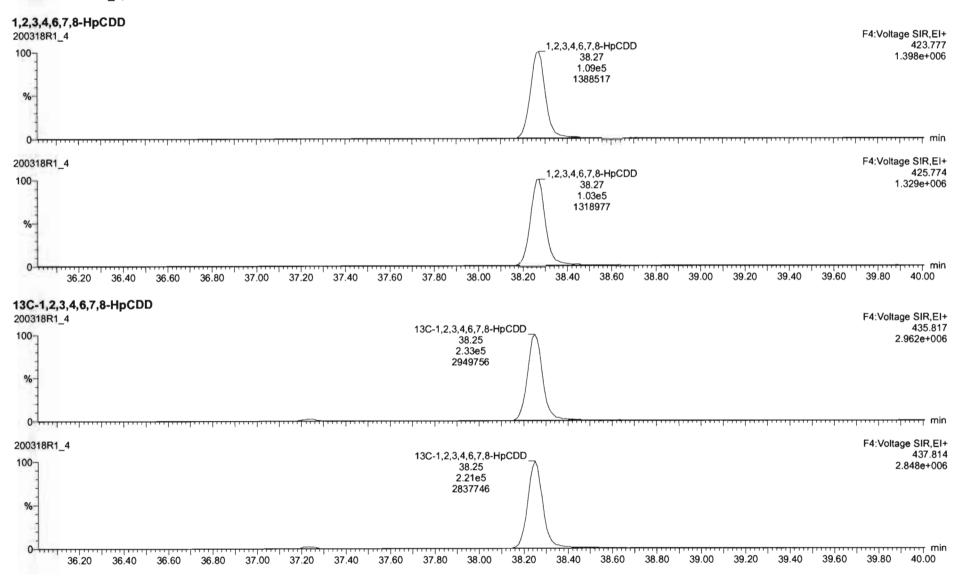
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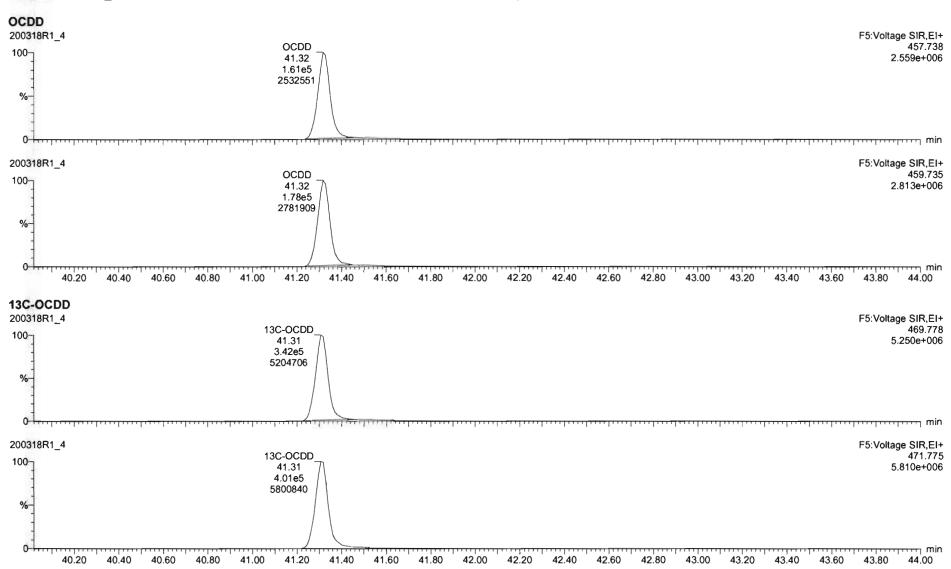
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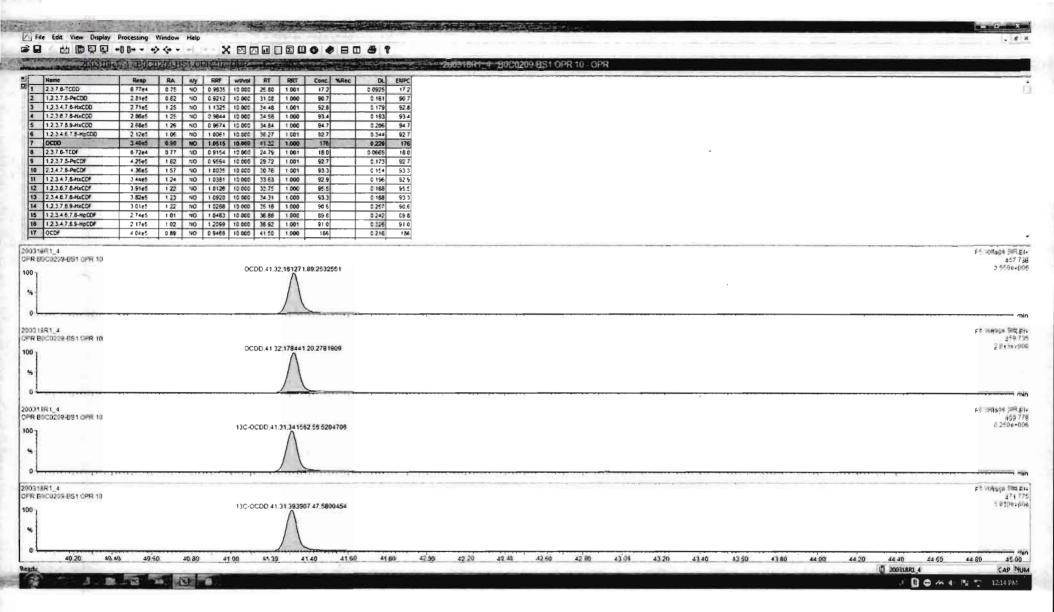
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Quantify Sample Report Vista Analytical Laboratory

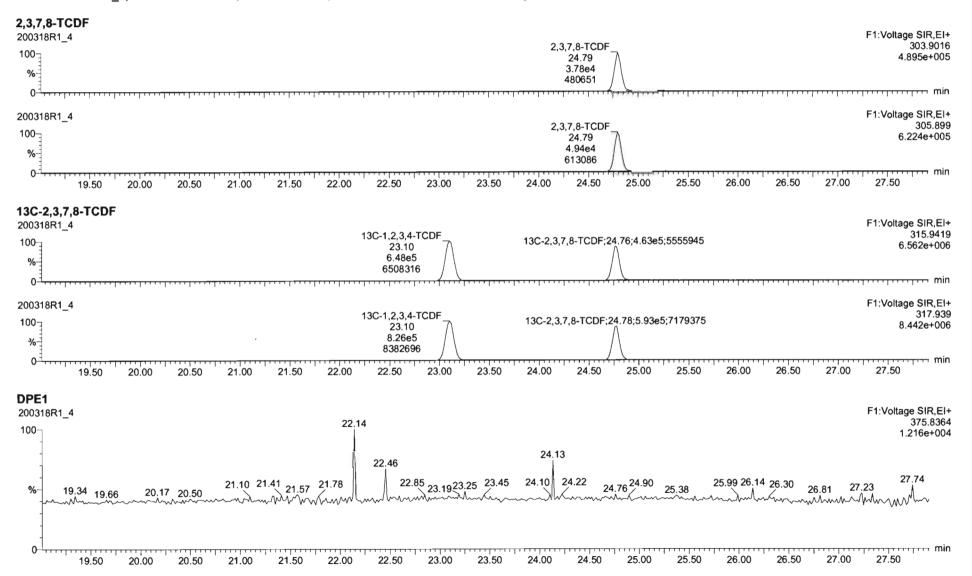
MassLynx 4.1 SCN815

Dataset:

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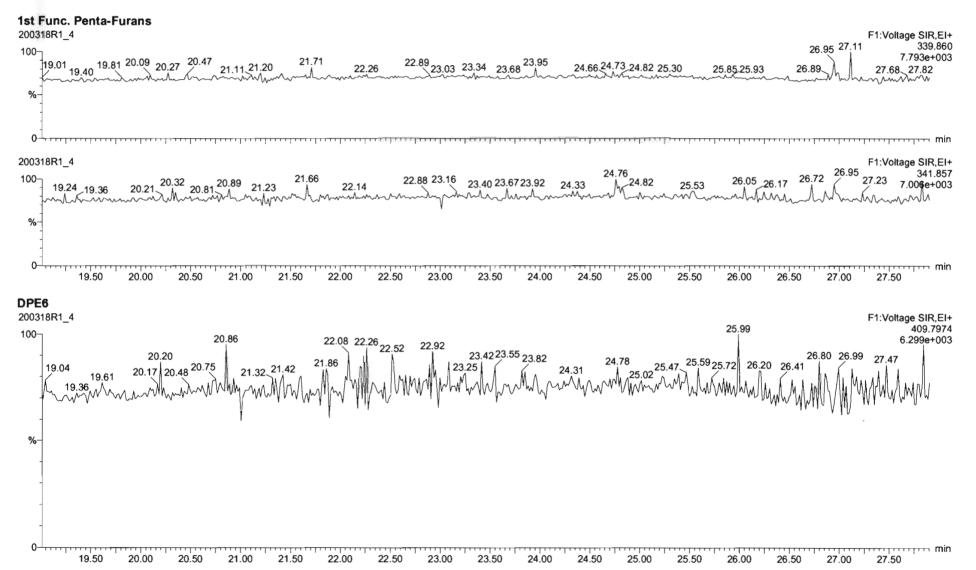
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Thursday, March 19, 2020 07:31:38 Pacific Daylight Time Thursday, March 19, 2020 07:32:25 Pacific Daylight Time



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Last Altered: Printed: Thursday, March 19, 2020 07:31:38 Pacific Daylight Time Thursday, March 19, 2020 07:32:25 Pacific Daylight Time

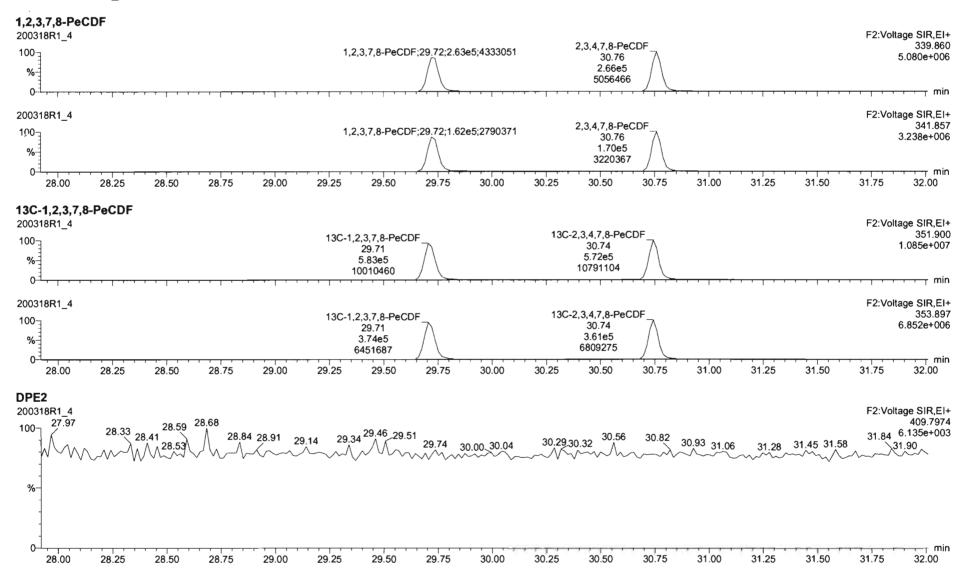


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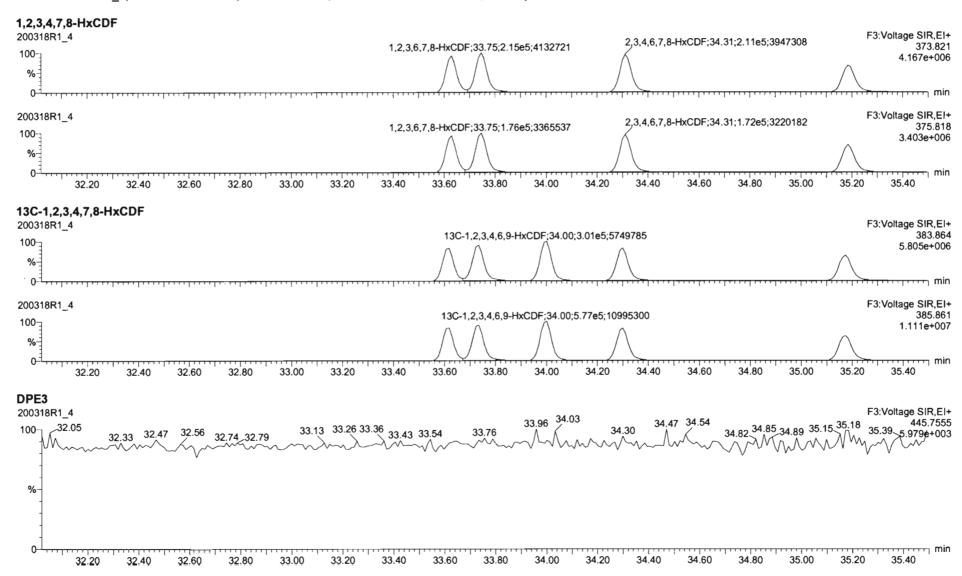
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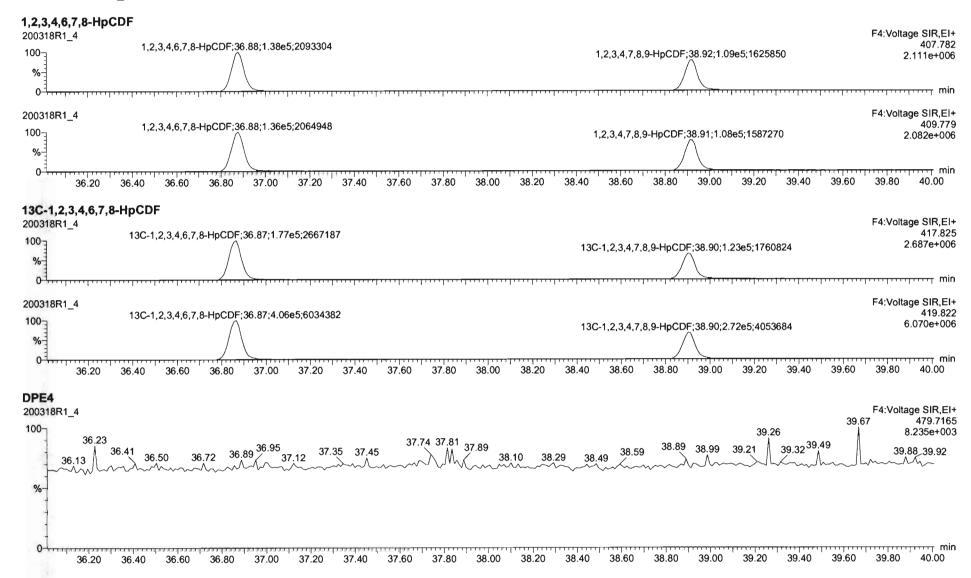
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Thursday, March 19, 2020 07:31:38 Pacific Daylight Time Thursday, March 19, 2020 07:32:25 Pacific Daylight Time



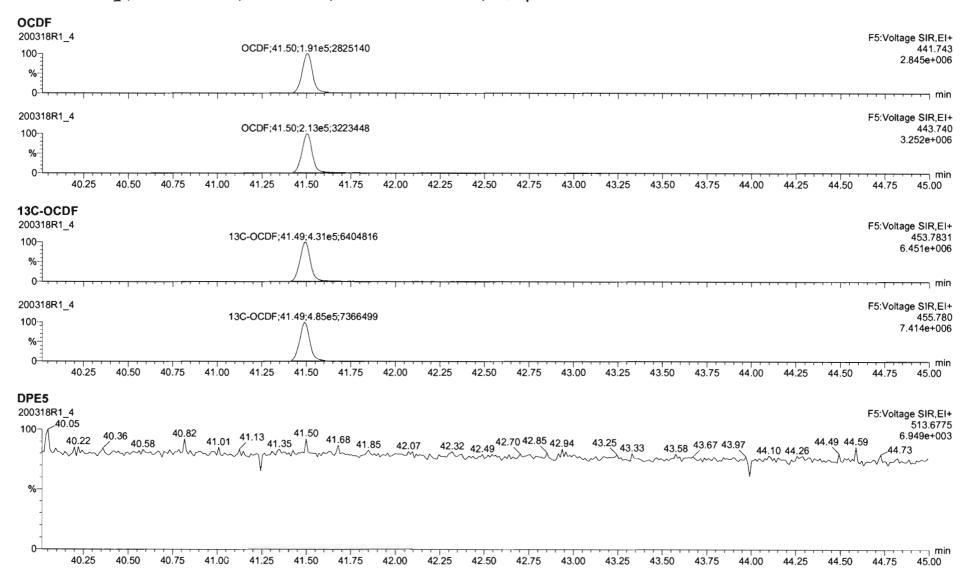
Quantify Sample Report

Dataset:

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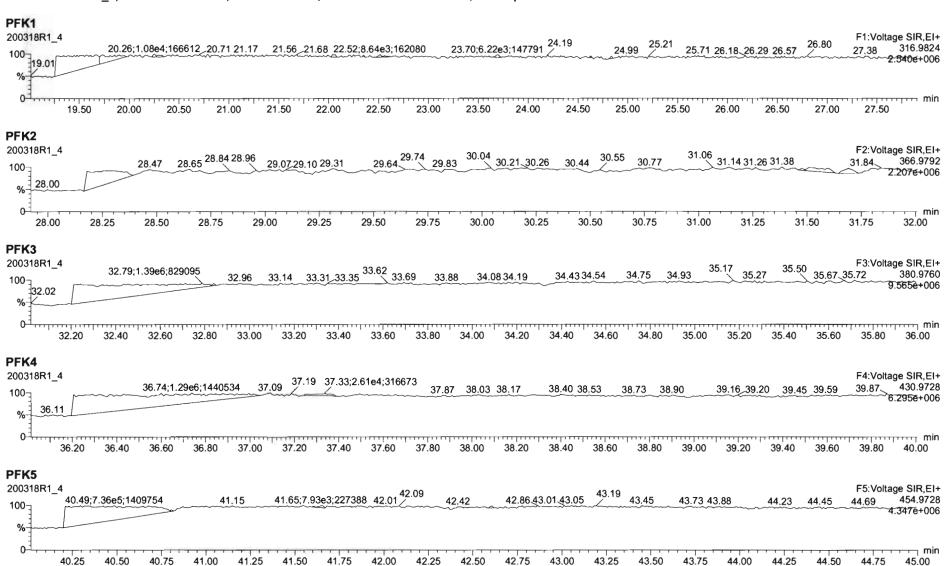
Thursday, March 19, 2020 07:31:38 Pacific Daylight Time Thursday, March 19, 2020 07:32:25 Pacific Daylight Time



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Last Altered: Printed:

Thursday, March 19, 2020 07:31:38 Pacific Daylight Time Thursday, March 19, 2020 07:32:25 Pacific Daylight Time



MassLynx 4.1 SCN815

Page 1 of 1

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-15.qld

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Saturday, February 08, 2020 11:42:23 Pacific Standard Time

Saturday, February 08, 2020 11:42:57 Pacific Standard Time

Hr 2.8.2020

C103/13/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

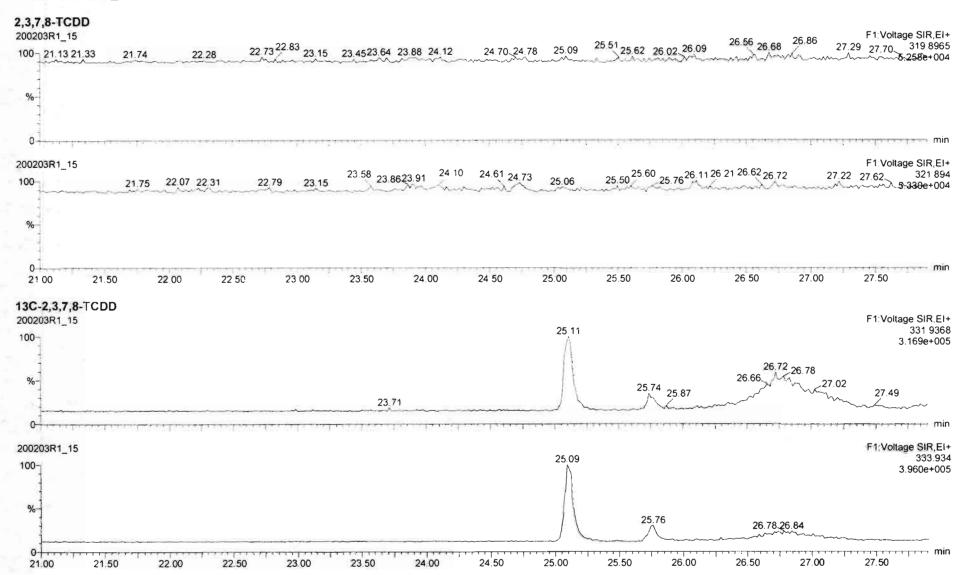
Name: 200203R1 15, Date: 03-Feb-2020, Time: 23:00:42, ID: 1903654-01@25X PDI-073SC-B-00-02-191013 15.31, Description: PDI-073SC-B-00-02-191013

#.	Name -	Resp	; RA	- n/y	RRF	; wt/vol ;	Pred.RT:	RT	: Pred.RRT:	RRT	Conc.	- %Rec -	DL-	EMPC
	1,2,3,4,6,7,8-HpCDD	6.02e5	1.01	NO	0.923	10.057	37.939	37.94	1.000	1.000	22433		57.0	22400
2 7	OCDD	1.61e6	0.88	NO	0.975	10.057	40.921	40.93	1.000	1.000	137020		72.3	137000
3 ; 23	13C-1,2,3,4,6,7,8-HpCDD	5.78e3	1.16	NO	0.747	10.057	37.967	37.93	1.132	1.131	44.064	22.2	3.48	
4 : 24	13C-OCDD	4.81e3	0.82	NO	0.707	10.057	40.852	40.92	1.218	1.220	38.759	9.75	3.44	
5 38	13C-1,2,3,4,6,9-HxCDF	3.49 e 4	0.52	NO	1.00	10.057	33.520	33.54	1.000	1.000	198.86	100	3.66	

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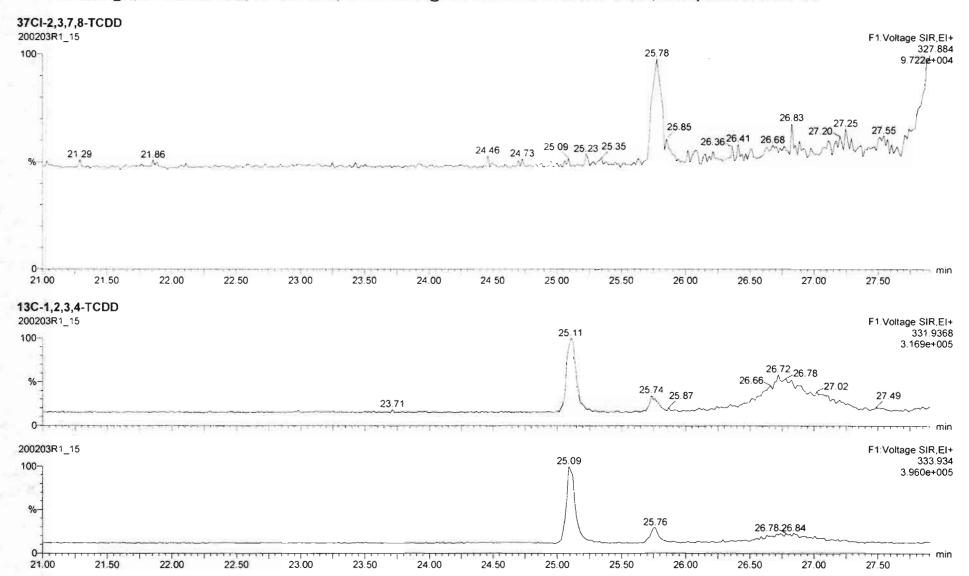
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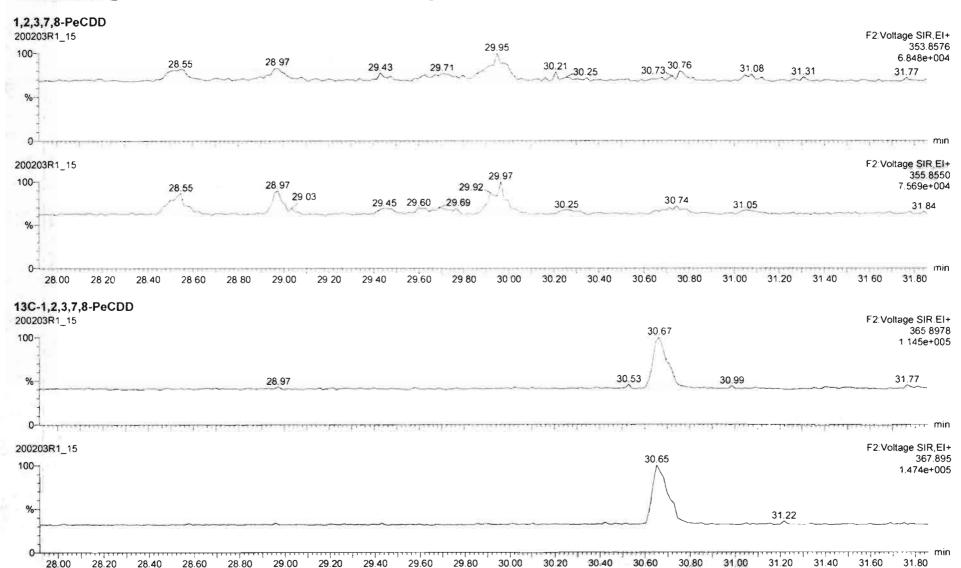
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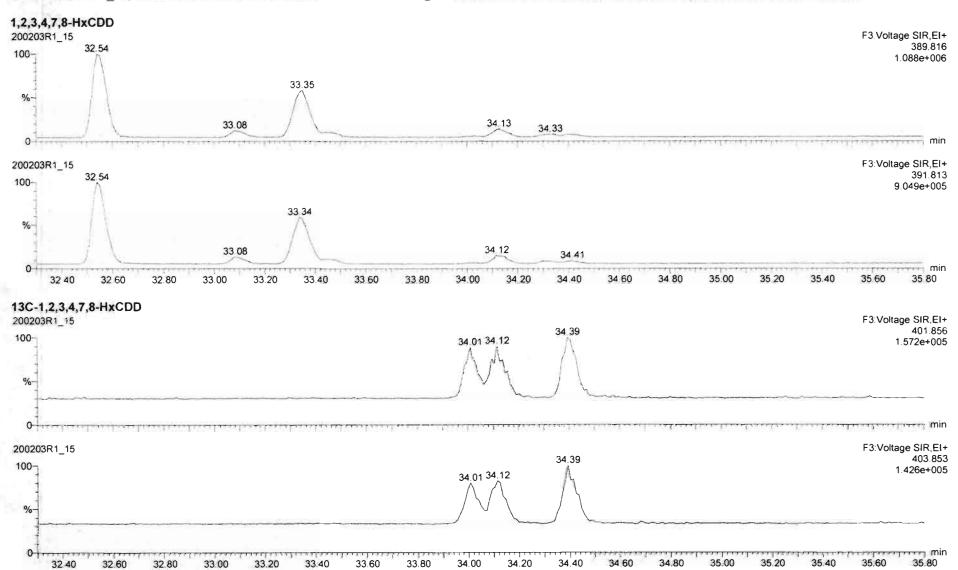
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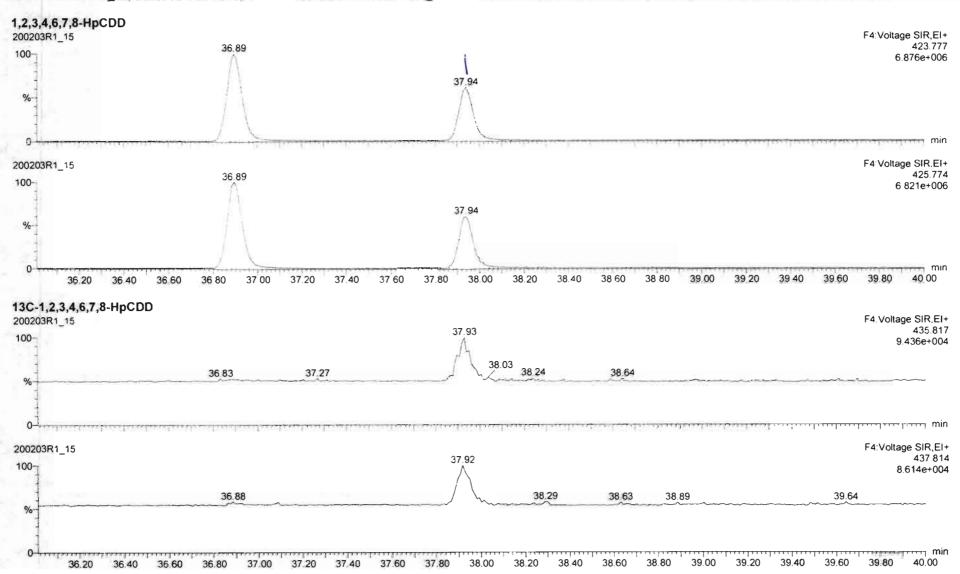
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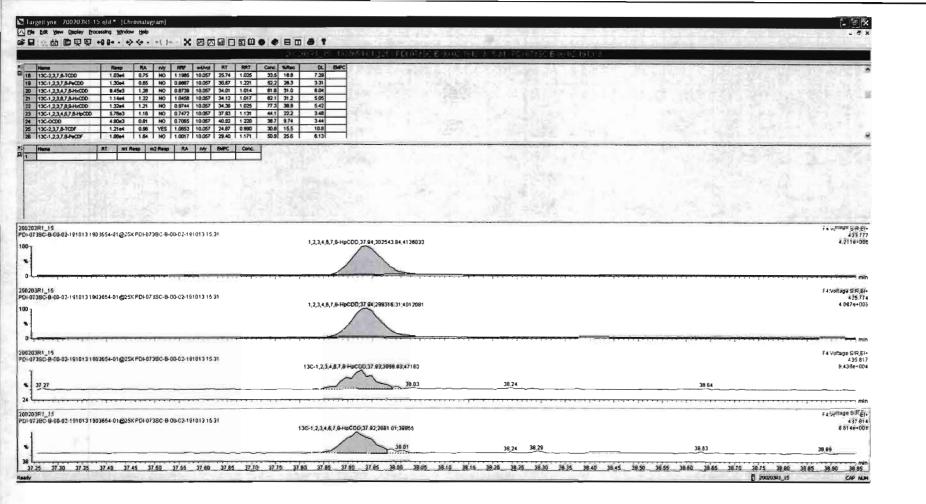
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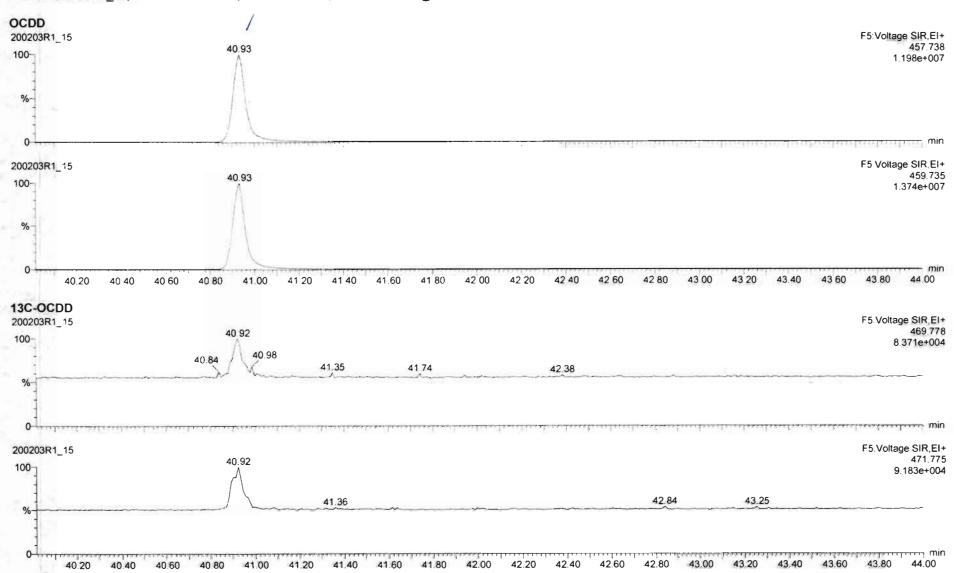


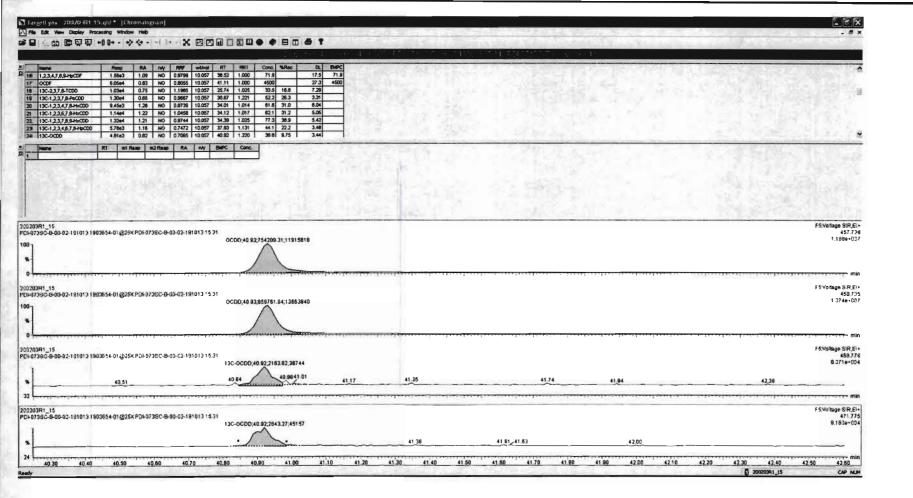


Work Order 1903654 Page 130 of 1184

Untitled

Last Altered: Printed: Tuesday, February 04, 2020 10:33:39 Pacific Standard Time Tuesday, February 04, 2020 10:33:41 Pacific Standard Time

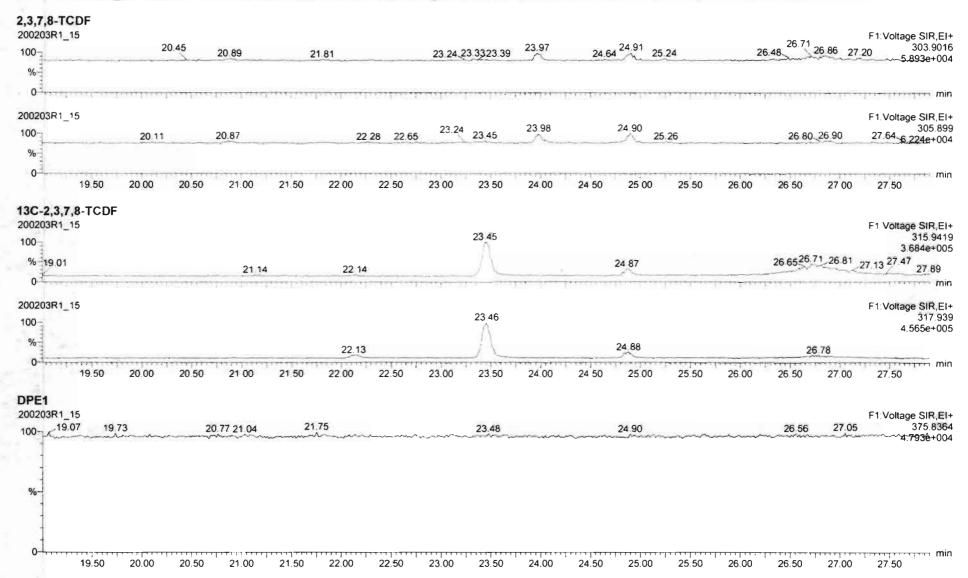




Work Order 1903654 Page 132 of 1184

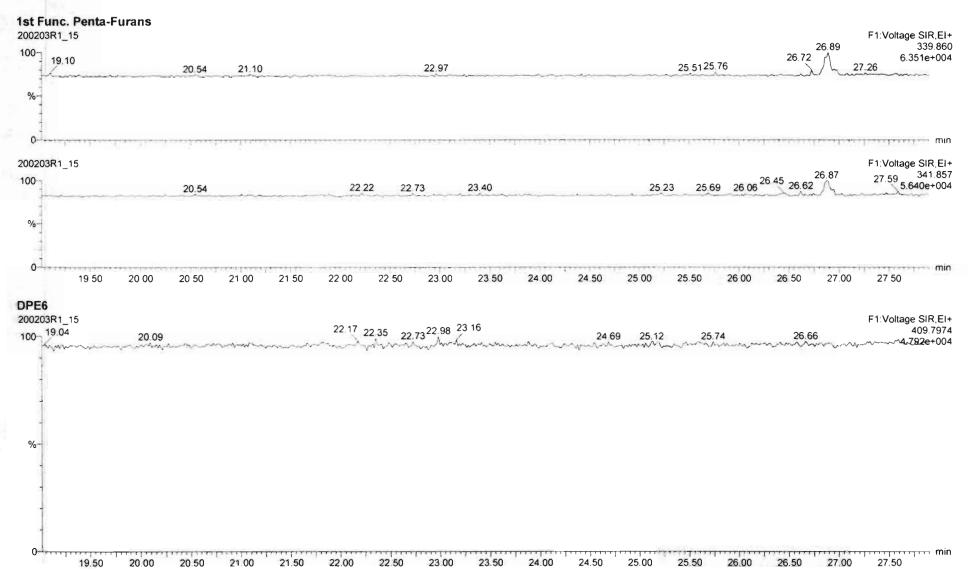
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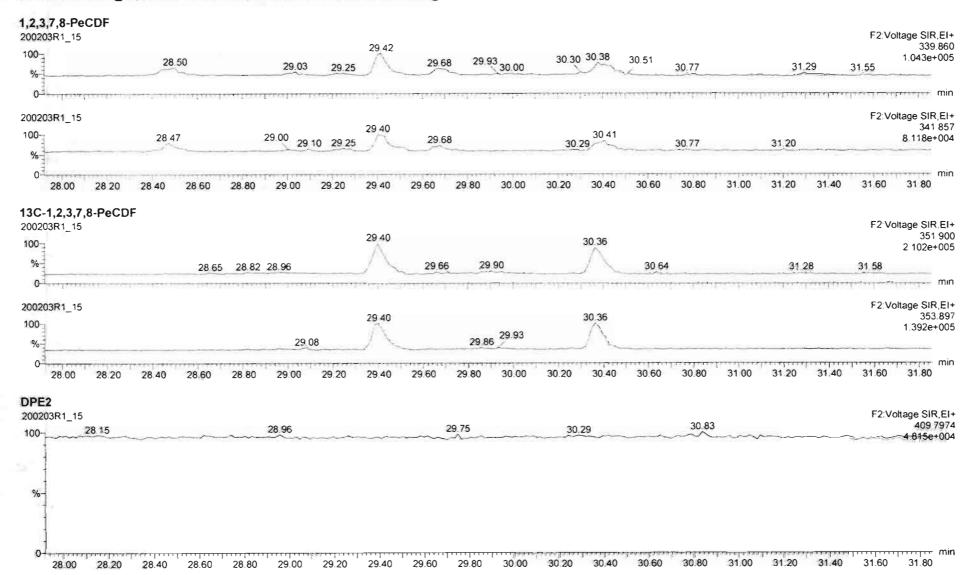
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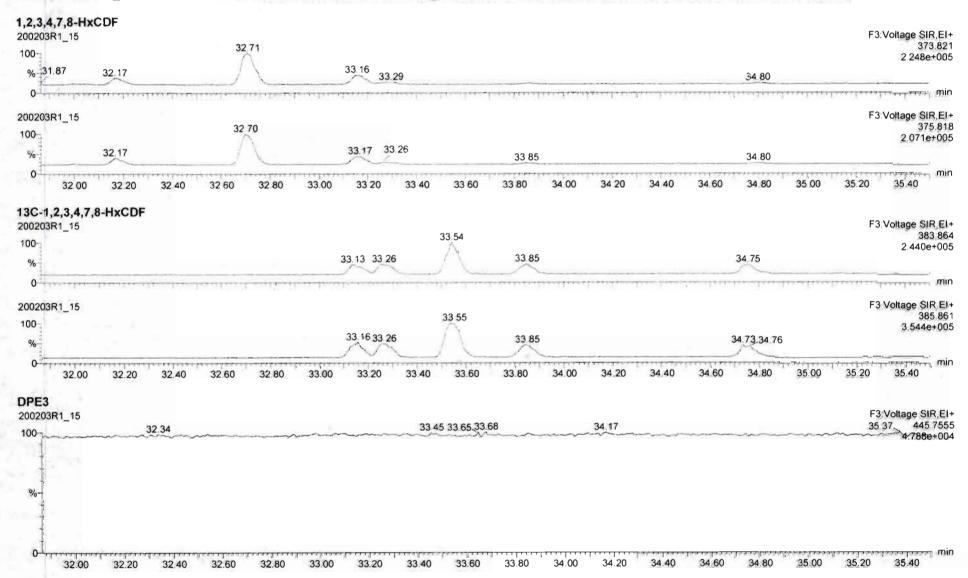
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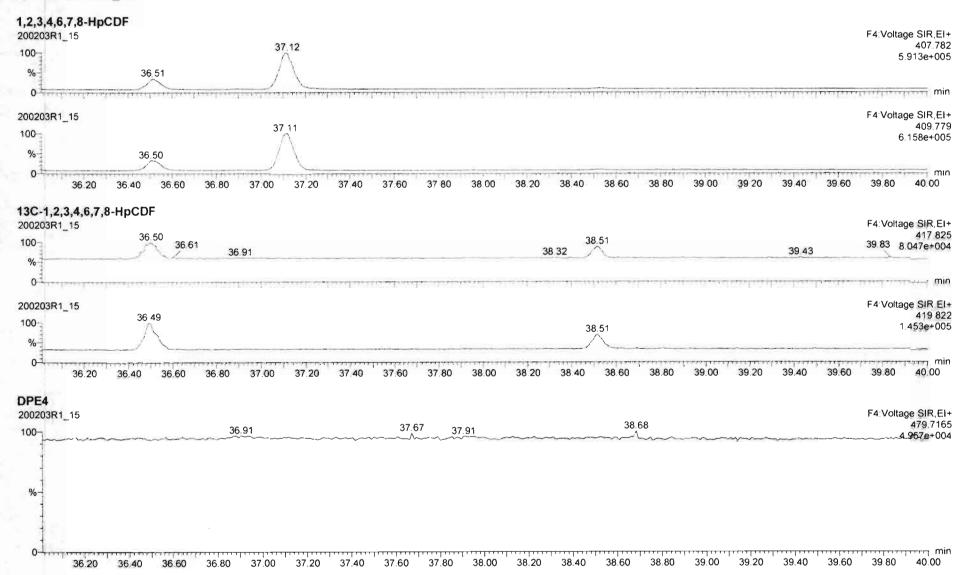
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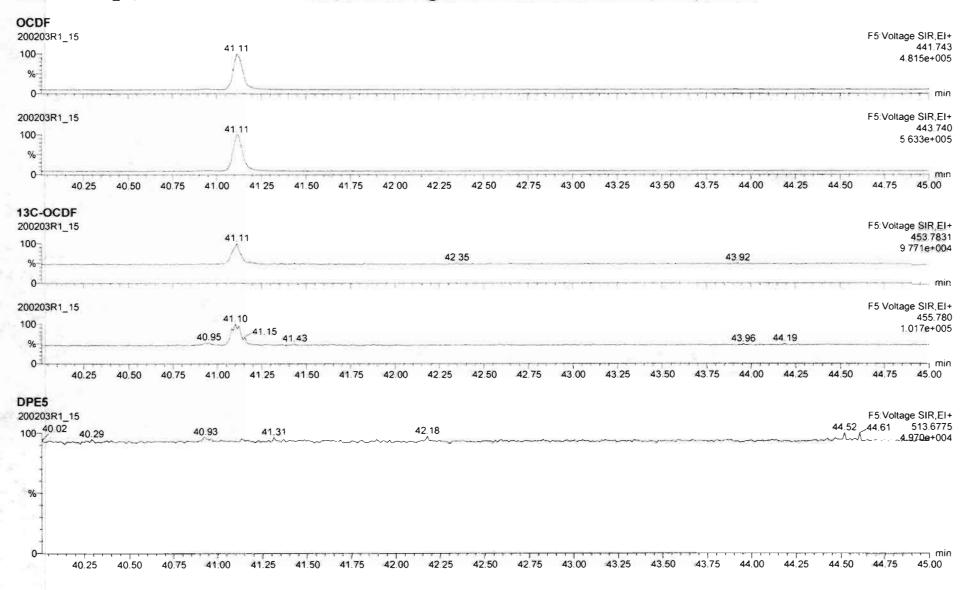
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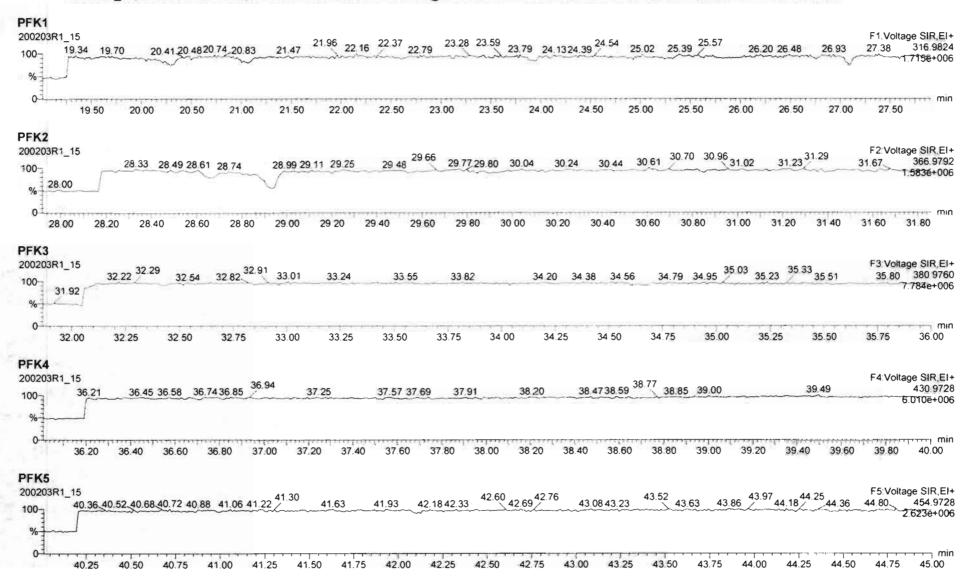
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Tuesday, February 04, 2020 10:33:39 Pacific Standard Time Tuesday, February 04, 2020 10:33:41 Pacific Standard Time



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Last Altered: Printed: Tuesday, February 04, 2020 10:33:39 Pacific Standard Time Tuesday, February 04, 2020 10:33:41 Pacific Standard Time



Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-14B.qld

Last Altered:

Friday, March 13, 2020 13:04:07 Pacific Daylight Time

Printed:

Friday, March 13, 2020 13:05:22 Pacific Daylight Time

HL 3.13.2020

CTUS/13/2020 X SEG dilution

Method: Untitled 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200203R1_14, Date: 03-Feb-2020, Time: 22:13:42, ID: 1903654-01@5X PDI-073SC-B-00-02-191013 15.31, Description: PDI-073SC-B-00-02-191013

; #-Name	Resp	; RA	· n/y	: RRF	wt/vol	Pred.RT;	RT	: Pred.RRT:	RRT :	Conc.	%Rec -	DL-	EMPC
1 2,3,7,8-TCDD			NO	0.988	10.057	25.931		1.001				4.14	
2 1,2,3,7,8-PeCDD	1.33e3	0.68	NO	0.972	10.057	30.765	30.76	1.001	1.000	5.1952		4.37	5.20
3 1,2,3,4,7,8-HxCDD	5.14e3	1.28	NO	1.07	10.057	34.082	34.09	1.000	1.001	27.929		8.51	27.9
4 1,2,3,6,7,8-HxCDD	4.94e4	1.26	NO	0.921	10.057	34.189	34.20	1.000	1.000	235.77		8.41	236
5 1,2,3,7,8,9-HxCDD	1.60e4	1.28	NO	0.918	10.057	34.500	34.49	1.001	1.001	67.692		6.73	67.7
6 1,2,3,4,6,7,8-HpCDD	3.03e6	1.01	NO	0.923	10.057	37.992	37.99	1.000	1.000	21249 🥆		31.8	21200
7 7 OCDD	9.80e6	0.90	NO	0.975	10.057	40.985	40.99	1.000	1.000	125570×		22.8	126000
8 2,3,7,8-TCDF	7.09e3	0.89	YES	0.802	10.057	25.057	25.05	1.001	1.001	46.047 C	K	4.30	43.0
9 1,2,3,7,8-PeCDF	2.22e4	1.43	NO	0.907	10.057	29.528	29.52	1.001	1.001	68.085		2.89	68.1
10	1.44e4	1.51	NO	0.952	10.057	30.499	30.48	1.001	1.000	45.601		3.00	45.6
11 1,2,3,4,7,8-HxCDF	2.53e4	1.10	NO	0.862	10.057	33.210	33.23	1.000	1.001	123.24		2.60	123
12 1,2,3,6,7,8-HxCDF	7.28e3	1.16	NO	0.841	10.057	33.337	33.35	1.000	1.001	32.780		2.59	32.8
13 - 13 2,3,4,6,7,8-HxCDF	2.54e3	1.07	NO	0.898	10.057	33.947	33.92	1.001	1.000	12.201		2.86	12.2
14 1,2,3,7,8,9-HxCDF	4.92e2	1.08	NO	0.858	10.057	34.829	34.83	1.000	1.000	2.6837		3.06	2.68
15 1,2,3,4,6,7,8-HpCDF	1.03e5	0.99	NO	0.851	10.057	36.602	36.59	1.001	1.001	643.36		5.83	643
16 1,2,3,4,7,8,9-HpCDF	5.99e3	1.03	NO	0.980	10.057	38.556	38.57	1.000	1.000	56.435		8.15	56.4
17 17 OCDF	3.52e5	0.84	NO	0.806	10.057	41.166	41.18	1.000	1.000	4395.1		8.07	4400
18 13C-2,3,7,8-TCDD	3.49e4	0.78	NO	1.20	10.057	25.905	25.90	1.026	1.025	30.820	15.5	1.22	
19 13C-1,2,3,7,8-PeCDD	5.25e4	0.65	NO	0.967	10.057	30.686	30.74	1.215	1.217	57.490	28.9	1.15	
20 13C-1,2,3,4,7,8-HxCDD	3.42e4	1.26	NO	0.874	10.057	34.074	34.07	1.014	1.014	57.750	29.0	1.27	
21 13C-1,2,3,6,7,8-HxCDD	4.53e4	1.27	NO	1.05	10.057	34.175	34.19	1.017	1.017	63.892	32.1	1.06	
22 13C-1,2,3,7,8,9-HxCDD	5.13e4	1.22	NO	0.974	10.057	34.478	34.47	1.026	1.026	77.777	39.1	1.14	
23 13C-1,2,3,4,6,7,8-HpCDD	3.07e4	0.98	NO	0.747	10.057	38.040	37.98	1.132	1.130	60.758	30.6	1.47	
24 13C-OCDD	3.18e4	0.90	NO	0.707	10.057	40.930	40.99	1.218	1.220	66.539	16.7 🔆	1.17	
25 25 13C-2,3,7,8-TCDF	3.82e4	0.75	NO	1.07	10.057	25.079	25.03	0.993	0.991	25.664	12.9	1.66	
26 ; 26 13C-1,2,3,7,8-PeCDF	7.15e4	1.58	NO	1.00	10.057	29.448	29.51	1.166	1.168	51.097	25.7	1.24	
27 : 27 13C-2,3,4,7,8-PeCDF	6.61e4	1.59	NO	0.962	10.057	30.408	30.47	1.204	1.206	49.172	24.7	1.30	
28 28 13C-1,2,3,4,7,8-HxCDF	4.74e4	0.49	NO	1.05	10.057	33.201	33.21	0.988	0.988	66.716	33.5	1.13	
29 13C-1,2,3,6,7,8-HxCDF	5.25e4	0.52	NO	1.19	10.057	33.302	33.33	0.991	0.992	65.173	32.8	1.00	
30 13C-2,3,4,6,7,8-HxCDF	4.61e4	0.52	NO	1.07	10.057	33.910	33.91	1.009	1.009	63.889	32.1	1.12	
31 31 13C-1,2,3,7,8,9-HxCDF	4.25e4	0.51	NO	0.922	10.057	34.814	34.83	1.036	1.036	68.101	34.2	1.29	

Page 140 of 1184 Work Order 1903654

U:\VG12.PRO\Results\200203R1\200203R1-14B.qld

Last Altered:

Friday, March 13, 2020 13:04:07 Pacific Daylight Time

Printed:

Friday, March 13, 2020 13:05:22 Pacific Daylight Time

Name: 200203R1_14, Date: 03-Feb-2020, Time: 22:13:42, ID: 1903654-01@5X PDI-073SC-B-00-02-191013 15.31, Description: PDI-073SC-B-00-02-191013

	#-Name	8 5	Resp	; RA	· n/y	; RRF	; wt/vol ;	Pred.RT:	RT	: Pred.RRT:	RRT	Conc.	- %Rec -	DL-	EMPC
32	; 32 13C-1,2,3,4,6,7,8-HpCDF		3.73e4	0.43	NO	0.767	10.057	36.561	36.56	1.088	1.088	71.867	36.1	1.27	
33	33 13C-1,2,3,4,7,8,9-HpCDF		2.15e4	0.45	NO	0.552	10.057	38.577	38.56	1.148	1.147	57.557	28.9	1.77	
34	34 13C-OCDF		3.95e4	0.85	NO	0.789	10.057	41.165	41.17	1.225	1.225	73.915	18.6	1.07	
35	35 37CI-2,3,7,8-TCDD		1.44e4			1.18	10.057	25.938	25.93	1.027	1.027	12.994	16.3	0.396	
36	36 13C-1,2,3,4-TCDD		1.88e5	0.77	NO	1.00	10.057	25.080	25.26	1.000	1.000	198.86	100	1.46	
37	37 13C-1,2,3,4-TCDF		2.78e5	0.76	NO	1.00	10.057	23.420	23.63	1.000	1.000	198.86	100	1.77	
38	- 38 13C-1,2,3,4,6,9-HxCDF		1.35e5	0.51	NO	1.00	10.057	33.520	33.60	1.000	1.000	198.86	100	1.19	
39	20 Total Tatm-Diavine					0.988	10.057	24.620		0.000		35.714		4.14	62.9
40	40 Total Penta-Dioxins					0.972	10.057	29.960		0.000		120.57		4.37	146
41	; 41 Total Hexa-Dioxins					0.921	10.057	33.635		0.000		4531.5		8.13	4530
42	3 42 Total Hepta-Dioxins					0.923	10.057	37.640		0.000		55293		31.8	55300
43	3 Total Tetra-Furans					0.802	10.057	23.610		0.000		67.684		4.30	111
44	44 1st Func. Penta-Furans					0.907	10.057	27.090		0.000		25.371		1.53	25.4
45	45 Total Penta-Furans					0.907	10.057	29.275		0.000		186.71		3.01	194
46	 46 Total Hexa-Furans 					0.898	10.057	33.555		0.000		643.56		2.66	644
47	47 Total Hepta-Furans					0.851	10.057	37.835		0.000		3910.8		7.13	3930

Work Order 1903654 Page 141 of 1184

Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-14B.qld

Last Altered:

Friday, March 13, 2020 13:04:07 Pacific Daylight Time

Printed: Friday, March 13, 2020 13:05:22 Pacific Daylight Time

Method: Untitled 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200203R1_14, Date: 03-Feb-2020, Time: 22:13:42, ID: 1903654-01@5X PDI-073SC-B-00-02-191013 15.31, Description: PDI-073SC-B-00-02-191013

Tetra-Dioxins

Name	; RT ;	m1 Height; m2 Height;	m1 Resp; m2 Resp	RA n/y	Resp	Conc.	EMPC:	DL
1 Total Tetra-Dioxins	22.94	5.770e3 6.140e3	4.990e2 6.002e2	0.83 NO	1.099e3	6.3357	6.3357	4.14
2 , Total Tetra-Dioxins	24.06	8.621e3 1.107e4	6.661e2 1.018e3	0.65 YES	0.000e0	0.00000	8.8253	4.14
3 Total Tetra-Dioxins	24.24	7.771e3 9.024e3	7.514e2 8.386e2	0.90 YES	0.000e0	0.00000	8.5561	4.14
4 Total Tetra-Dioxins	24.85	9.676e3 1.341e4	8.384e2 1.229e3	0.68 NO	2.068e3	11.918	11.918	4.14
5 Total Tetra-Dioxins	25.24	9.054e3 8.863e3	6.712e2 8.546e2	0.79 NO	1.526e3	8.7953	8.7953	4.14
6 Total Tetra-Dioxins	25.63	6.644e3 6.057e3	4.129e2 3.905e2	1.06 YES	0.000e0	0.00000	3.9840	4.14
7 Total Tetra-Dioxins	25.76	6.007e3 9.683e3	4.370e2 7.771e2	0.56 YES	0.000e0	0.00000	5.7905	4.14
8 Total Tetra-Dioxins	26.20	7.939e3 1.184e4	6.137e2 8.897e2	0.69 NO	1.503e3	8.6657	8.6657	4.14

Penta-Dioxins

	Name	RT :	m1 Height;	m2 Height;	m1 Resp;	m2 Resp	RA	n/y	Resp	Conc.	EMPC:	DL
1	Total Penta-Dioxins	28.76	3.295e4	4.934e4	3.126e3	5.010e3	0.62	NO	8.137e3	31.679	31.679	4.37
2	Total Penta-Dioxins	29.11	3.312e4	5.972e4	1.249e3	2.171e3	0.58	NO	3.420e3	13.317	13.317	4.37
3	Total Penta-Dioxins	29.55	1.830e4	2.720e4	9.283e2	1.800e3	0.52	YES	0.000e0	0.00000	9.3517	4.37
4	Total Penta-Dioxins	29.72	2.260e4	3.040e4	1.097e3	1.542e3	0.71	NO	2.639e3	10.273	10.273	4.37
5	Total Penta-Dioxins	29.83	2.041e4	2.996e4	1.235e3	1.799e3	0.69	NO	3.034e3	11.814	11.814	4.37
6	Total Penta-Dioxins	30.07	5.086e4	8.770e4	4.520e3	7.883e3	0.57	NO	1.240e4	48.289	48.289	4.37
7	Total Penta-Dioxins	30.38	9.551e3	1.498e4	6.908e2	9.396e2	0.74	YES	0.000e0	0.00000	5.9629	4.37
8	1,2,3,7,8-PeCDD	30.76	1.018e4	1.327e4	5.378e2	7.966e2	0.68	NO	1.334e3	5.1952	5.1952	4.37
9	Total Penta-Dioxins	30.83	1.778e4	2.527e4	1.200e3	1.615e3	0.74	YES	0.000e0	0.00000	10.252	4.37

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Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-14B.qld

Last Altered:

Friday, March 13, 2020 13:04:07 Pacific Daylight Time

Printed: Friday, March 13, 2020 13:05:22 Pacific Daylight Time

Name: 200203R1_14, Date: 03-Feb-2020, Time: 22:13:42, ID: 1903654-01@5X PDI-073SC-B-00-02-191013 15.31, Description: PDI-073SC-B-00-02-191013

Hexa-Dioxins

;Na	ame ;	RT ;	m1 Height;	m2 Height;	m1 Resp;	m2 Resp	RA:	n/y	Resp	Conc.	EMPC:	DL
1 ,To	tal Hexa-Dioxins	32.62	4.835e6	3.881e6	2.464e5	1.995e5	1.23	NO	4.459e5	2208.7	2208.7	8.13
2 ;To	tal Hexa-Dioxins	33.16	3.689e5	3.229e5	2.021e4	1.717e4	1.18	NO	3.738e4	185.16	185.16	8.13
3 .Tc	tal Hexa-Dioxins	33.41	2.446e6	2.014e6	1.712e5	1.397e5	1.23	NO	3.108e5	1539.8	1539.8	8.13
4 To	tal Hexa-Dioxins	33.52	3.471e5	2.654e5	1.968e4	1.534e4	1.28	NO	3.502e4	173.48	173.48	8.13
The second secon	2,3,4,7,8-HxCDD	34.09	5.66 6e 4	3.497e4	2.890e3	2.250e3	1.28	NO	5.140e3	27.929	27.929	8.51
6 -1,	2,3,6,7,8-HxCDD	34.20	4.478e5	3.373e5	2.751e4	2.190e4	1.26	NO	4.942e4	235.77	235.77	8.41
7 To	tal Hexa-Dioxins	34.39	1.826e5	1.560e5	1.008e4	8.697e3	1.16	NO	1.877e4	92.998	92.998	8.13
8 1,	2,3,7,8,9-HxCDD	34.49	1.693e5	1.294e5	9.001e3	7.040e3	1.28	NO	1.604e4	67.692	67.692	6.73

Hepta-Dioxins

Name		RT :	m1 Height;	m2 Height ;	m1 Resp;	m2 Resp	RA	n/y	Resp	- 1	Conc.	EMPC:	DL
1 Total Hepta-Dioxins		36.97	3.678e7	3.644e7	2.435e6	2.423e6	1.01	NO	4.859e6		34044	34044	31.8
2 [1,2,3,4,6,7,8-HpCDD)	37.99	2.270e7	2.279e7	1.521e6	1.511e6	1.01	NO	3.033e6		21249	21249	31.8

Tetra-Furans

	Name	RT	:	m1 Height	m2 Height ;	m1 Resp;	m2 Resp	: RA	n/y	Resp	Conc.	EMPC;	DL
1	Total Tetra-Furans	21.20	0	1.249e4	1.233e4	1.064e3	1.333e3	0.80	NO	2.397e3	15.558	15.558	4.30
2	Total Tetra-Furans	24.13	3	5.535e4	7.307e4	3.226e3	4.047e3	0.80	NO	7.273e3	47.206	47.206	4.30
3	2,3,7,8-TCDF	25.0	5	4.439e4	4.757e4	3.349e3	3.745e3	0.89	YES	7.094e3	0.00000	43.025	4.30
4	Total Tetra-Furans	25.3	9	5.990e3	8.049e3	3.270e2	4.311e2	0.76	NO	7.582e2	4.9210	4.9210	4.30

Penta-Furans function 1

	Name	: RT	m1 Height; m2 Height;	m1 Resp; m2 Resp	RA n/y	Resp	Conc	EMPC:	DL
1	1st Func. Penta-Furans	27.11	6.204e4 3.840e4	4.872e3 3.093e3	1.58 NO	7.965e3	25.371	25.371	1.53

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Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-14B.qld

Last Altered:

Friday, March 13, 2020 13:04:07 Pacific Daylight Time

Printed: Friday, March 13, 2020 13:05:22 Pacific Daylight Time

Name: 200203R1_14, Date: 03-Feb-2020, Time: 22:13:42, ID: 1903654-01@5X PDI-073SC-B-00-02-191013 15.31, Description: PDI-073SC-B-00-02-191013

Penta-Furans

	Name	: RT :	m1 Height; m2 Height	; m1 Resp; m2 Res	p RA n/y	Resp	: Conc	EMPC:	DL
1	Total Penta-Furans	28.70	7.328e4 4.255e4	6.486e3 4.132e3	3 1.57 NO	1.062e4	33.824	33.824	3.01
2	:Total Penta-Furans	29.16	2.137e4 1.678e4	1.435e3 1.105e3	3 1.30 YES	0.000e0	0.00000	7.5201	3.01
3	Total Penta-Furans	29.35	2.794e4 1.874e4	1.617e3 1.135e3	3 1.42 NO	2.753e3	8.7683	8.7683	3.01
4	1,2,3,7,8-PeCDF	29.52	2.255e5 1.457e5	1.308e4 9.139e3	3 1.43 NO	2.222e4	68.085	68.085	2.89
5	Total Penta-Furans	29.60	3.584e4 1.757e4	8.501e2 5.231e2	2 1.63 NO	1.373e3	4.3741	4.3741	3.01
6	Total Penta-Furans	29.78	7.780e4 4.329e4	4.913e3 3.267e3	3 1.50 NO	8.181e3	26.059	26.059	3.01
7	2,3,4,7,8-PeCDF	30.48	1.250e5 7.897e4	8.666e3 5.752e3	1.51 NO	1.442e4	45.601	45.601	3.00

Hexa-Furans

Name	; RT ;	m1 Height; m2 Height;	m1 Resp; m2 Resp	RA n/y	Resp	Conc.	EMPC;	DL
1 Total Hexa-Furans	32.15	2.433e4 1.632e4	8.316e2 7.222e2	1.15 NO	1.554e3	7.2964	7.2964	2.66
2 Total Hexa-Furans	32.26	1.478e5 1.196e5	7.784e3 6.580e3	1.18 NO	1.436e4	67.453	67.453	2.66
3 Total Hexa-Furans	32.77	8.399e5 7.257e5	4.430e4 3.776e4	1.17 NO	8.205e4	385.31	385.31	2.66
4 1,2,3,4,7,8-HxCDF	33.23	2.397e5 2.213e5	1.329e4 1.204e4	1.10 NO	2.533e4	123.24	123.24	2.60
5 1,2,3,6,7,8-HxCDF	33.35	6.133e4 6.176e4	3.917e3 3.367e3	1.16 NO	7.284e3	32.780	32.780	2.59
6 2,3,4,6,7,8-HxCDF	33.92	2.345e4 2.225e4	1.314e3 1.228e3	1.07 NO	2.542e3	12.201	12.201	2.86
7 1,2,3,7,8,9-HxCDF	34.83	1.078e4 1.170e4	2.553e2 2.371e2	1.08 NO	4.924e2	2.6837	2.6837	3.06
8 Total Hexa-Furans	34.86	2.573e4 2.305e4	1.454e3 1.227e3	1.19 NO	2.681e3	12.590	12.590	2.66

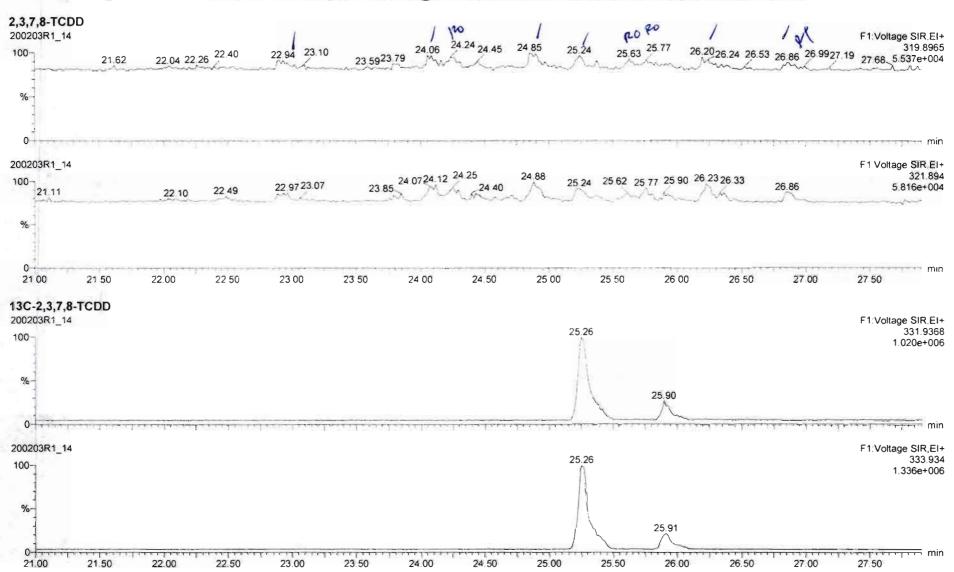
Hepta-Furans

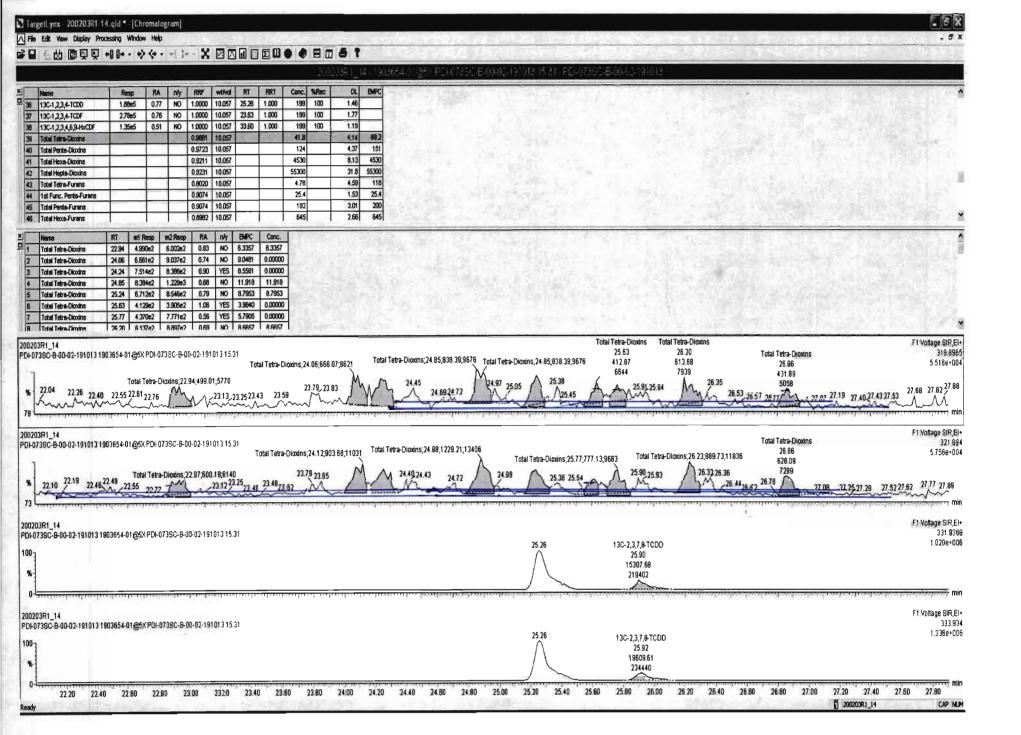
	Name	TI, C	RT :	m1 Height	m2 Height ;	m1 Resp;	m2 Resp	· RA	n/y	Resp	Conc	EMPC;	DL
1	1,2,3,4,6,7,8-HpCDF		36.59	8.072e5	8.187e5	5.121e4	5.160e4	0.99	NO	1.028e5	643.36	643.36	5.83
2	Total Hepta-Furans		36.96	2.270e4	2.114e4	1.547e3	1.255e3	1.23	YES	0.000e0	0.00000	20.329	7.13
3	Total Hepta-Furans		37.18	3.045e6	3.261e6	1.982e5	2.063e5	0.96	NO	4.045e5	3211.0	3211.0	7.13
4	1,2,3,4,7,8,9-HpCDF		38.57	5.701e4	5.602e4	3.039e3	2.948e3	1.03	NO	5.987e3	56.435	56.435	8.15

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Last Altered: Printed: Tuesday, February 04, 2020 10:33:39 Pacific Standard Time Tuesday, February 04, 2020 10:33:41 Pacific Standard Time





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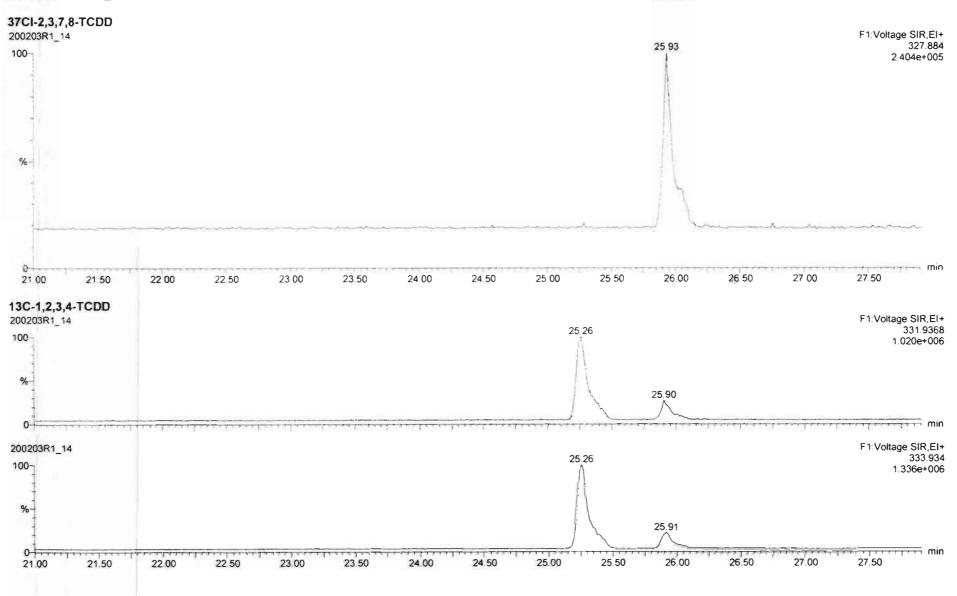
Work Order 1903654

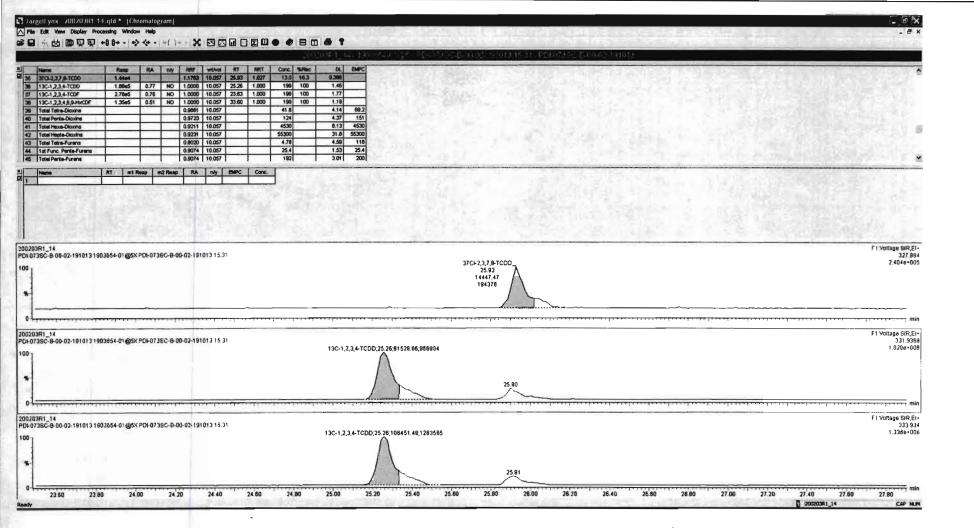
Page 147 of 1184

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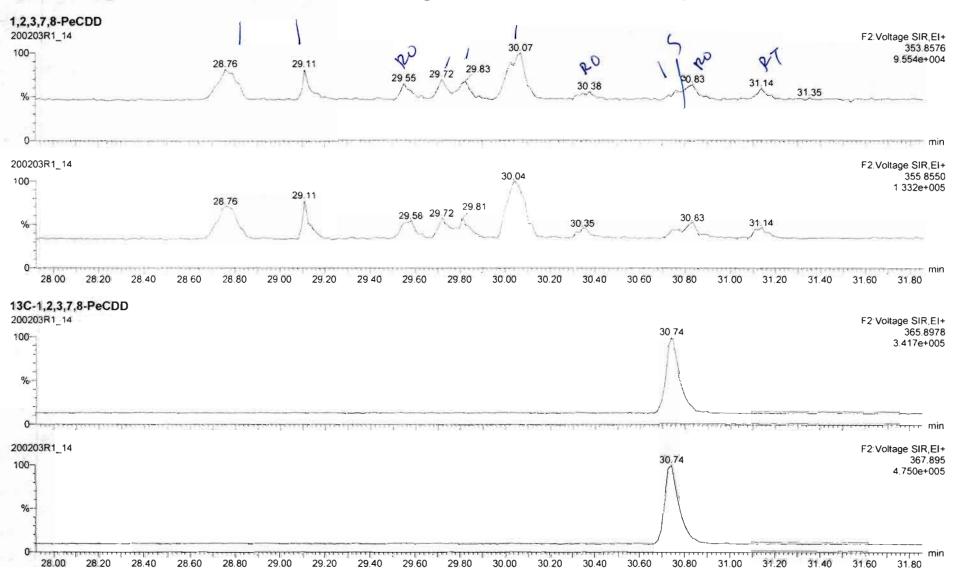


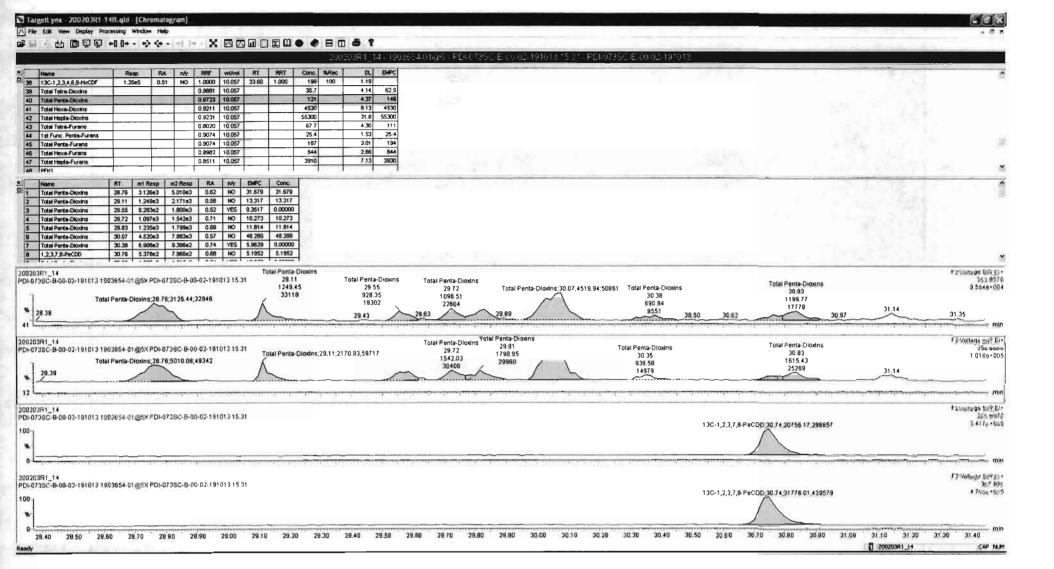


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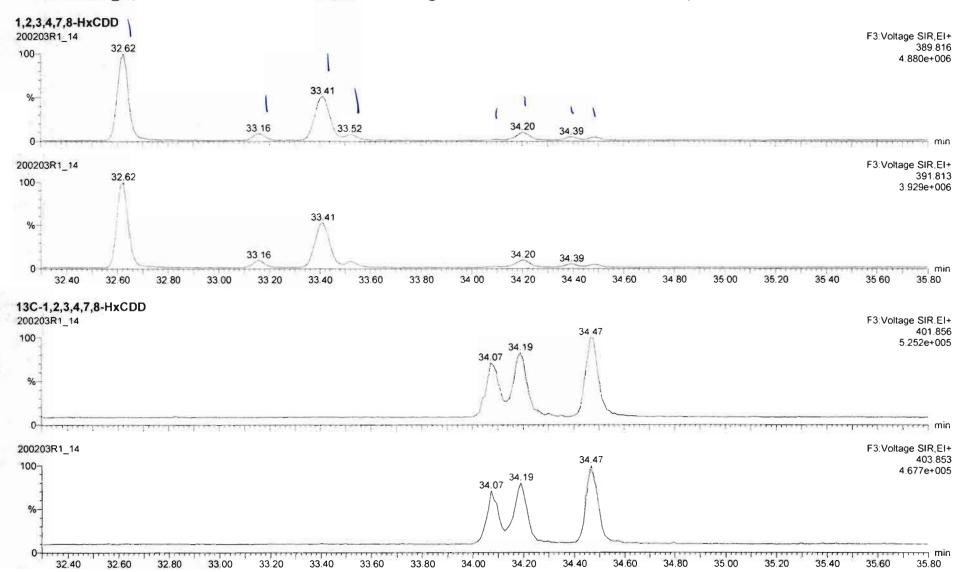


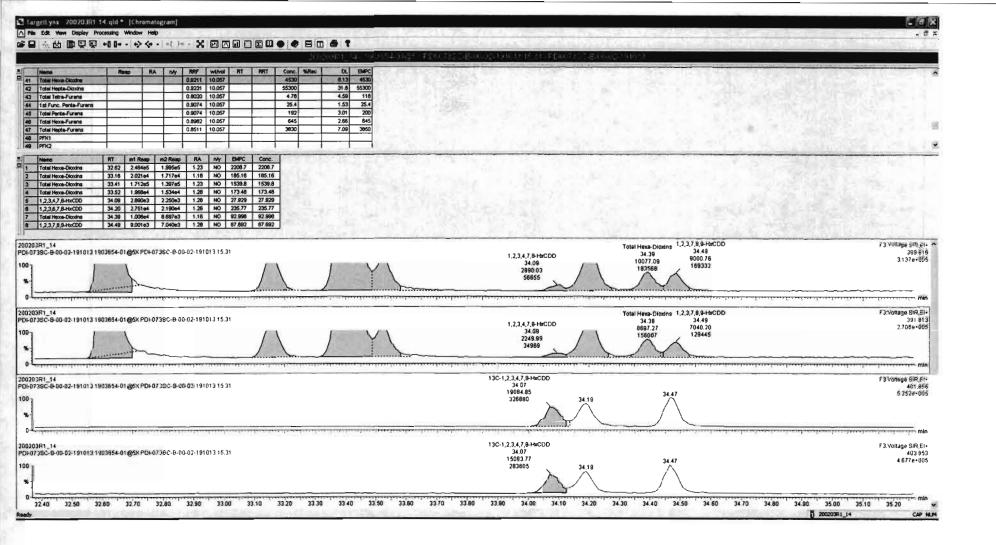


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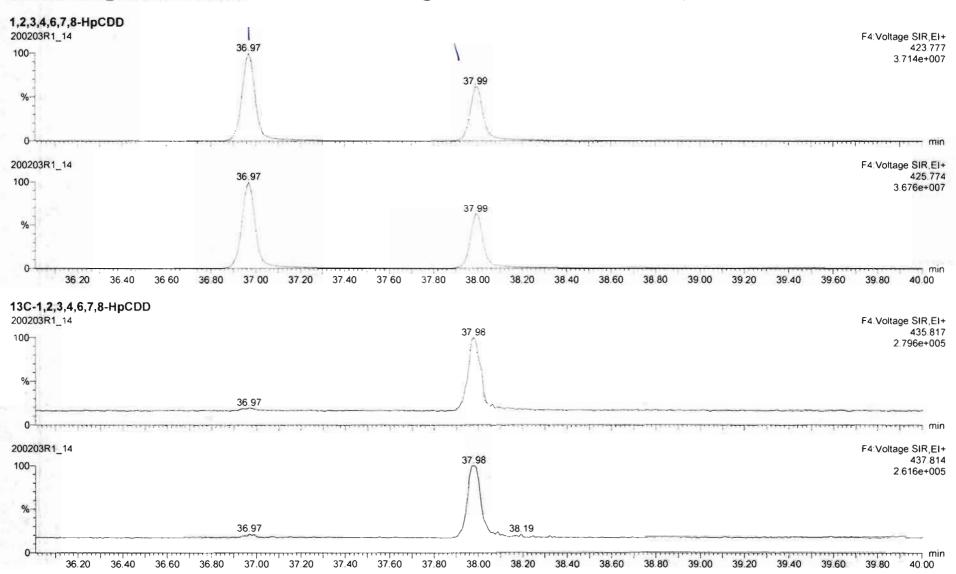


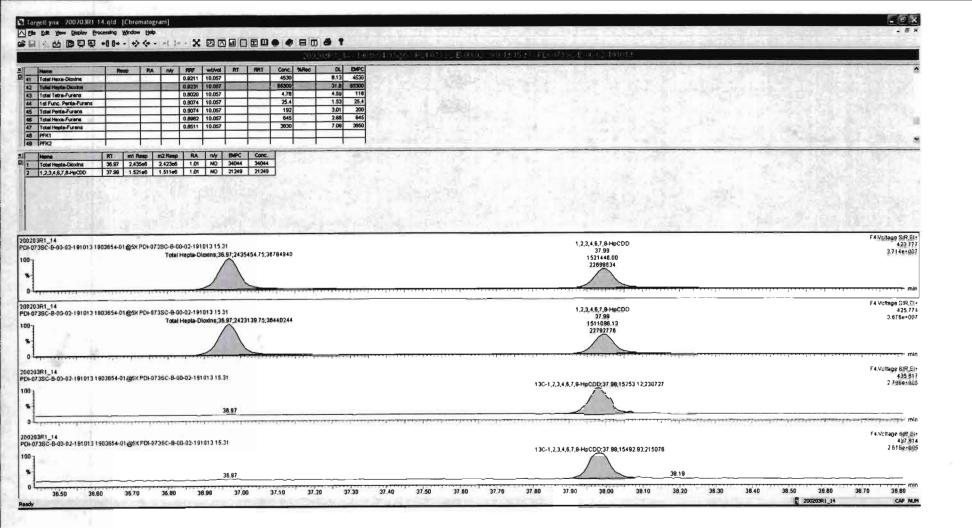


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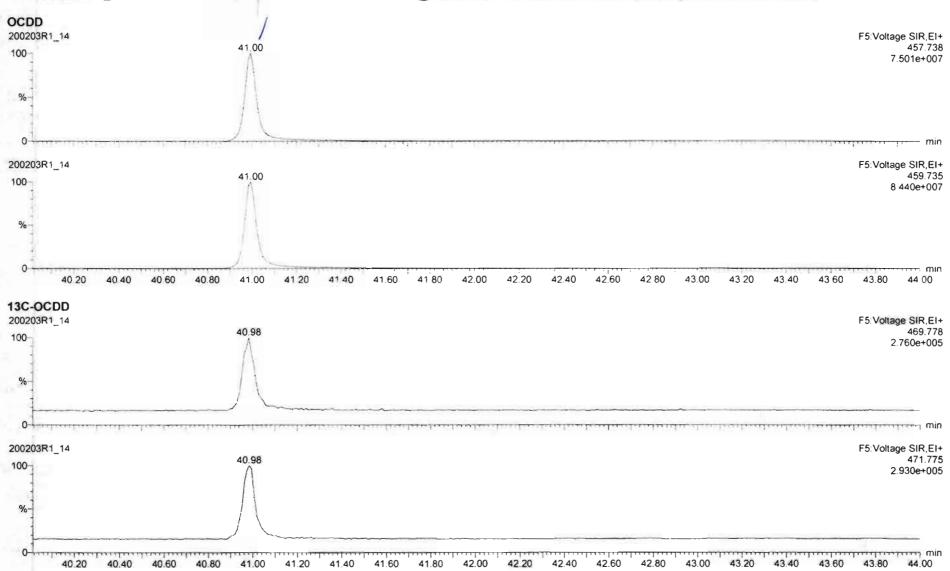


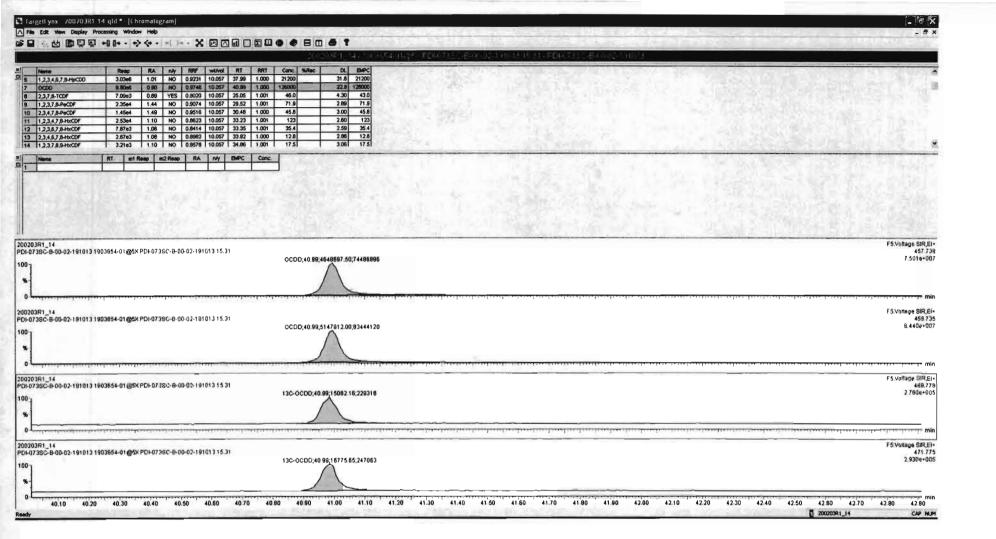
Work Order 1903654 Page 154 of 1184

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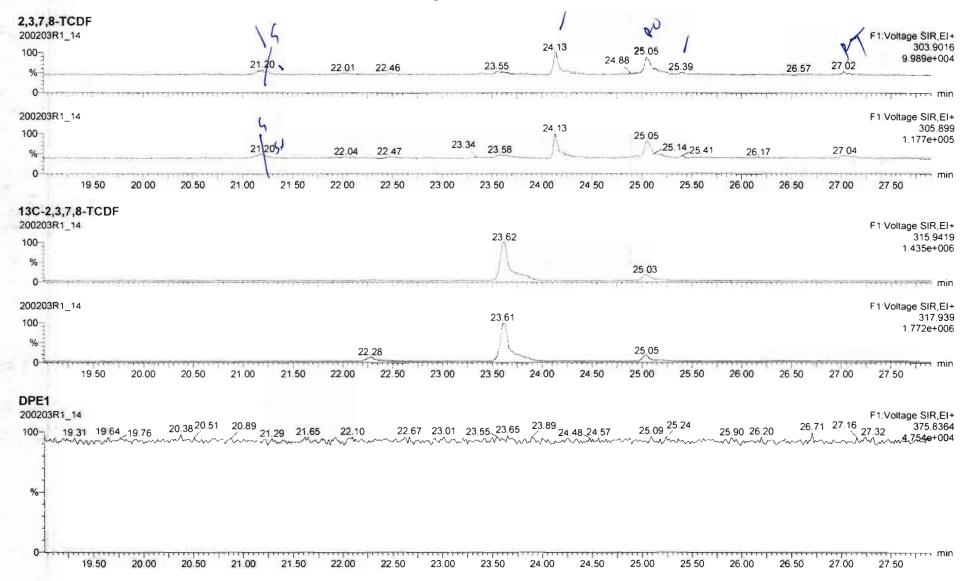


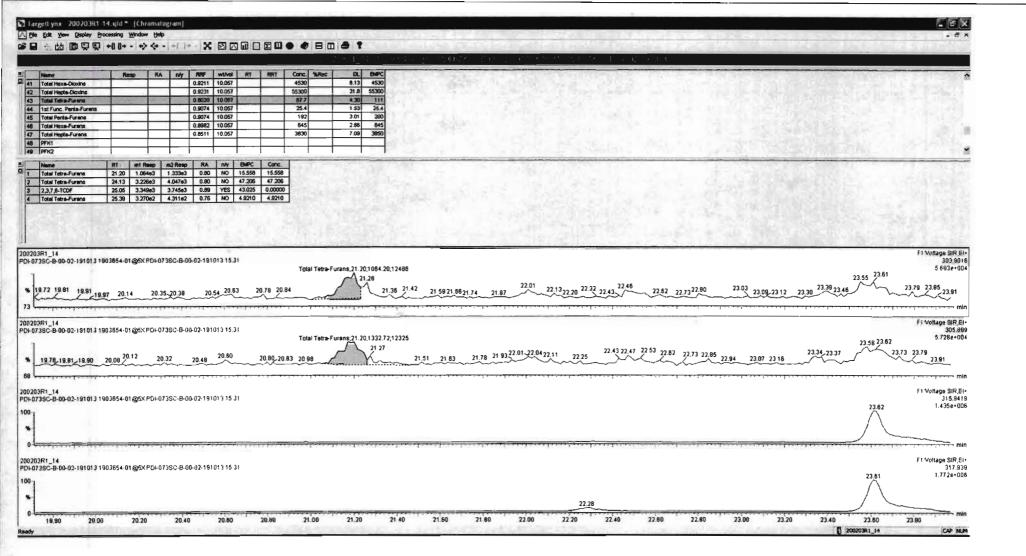


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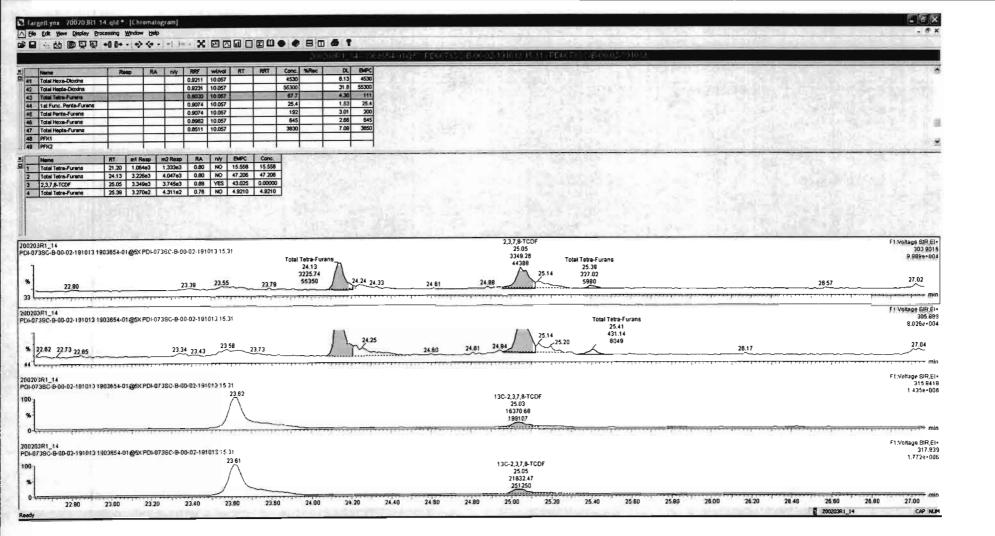
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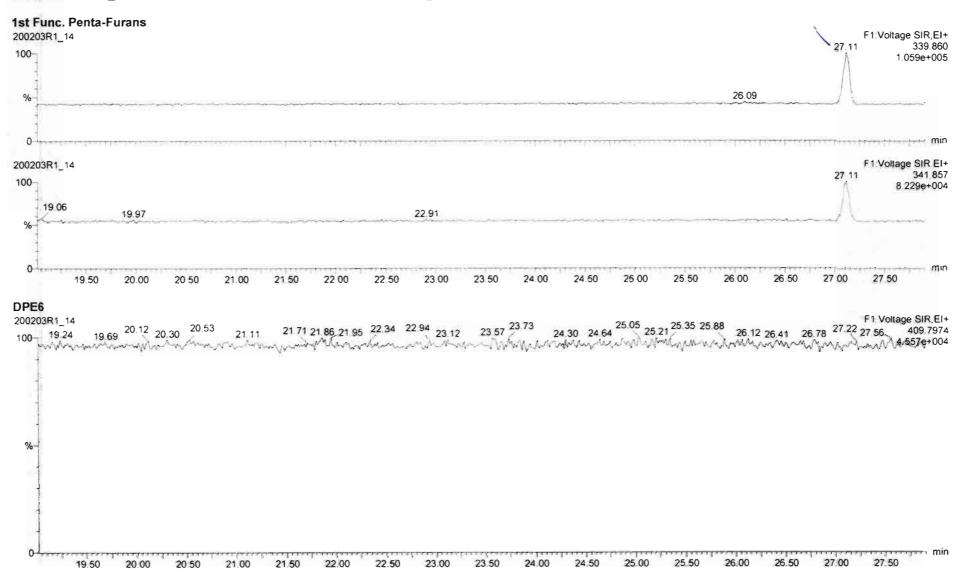
Work Order 1903654 Page 159 of 1184

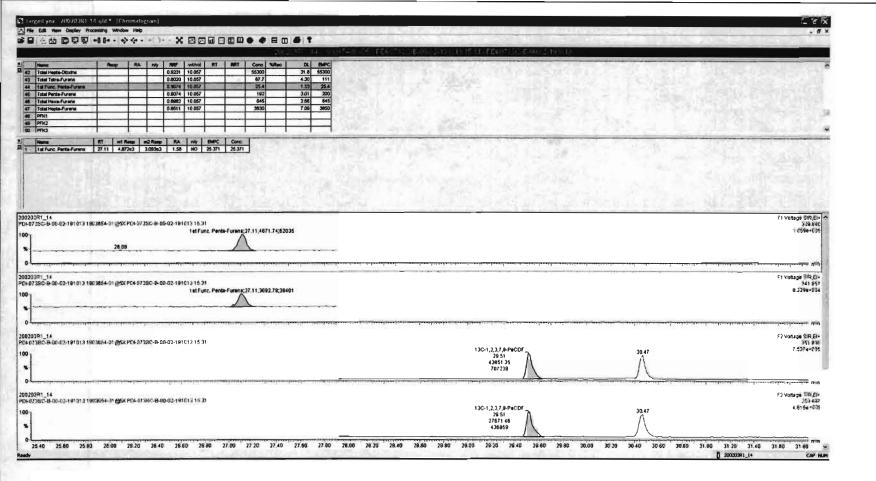
Vista Analytical Laboratory

Dataset:

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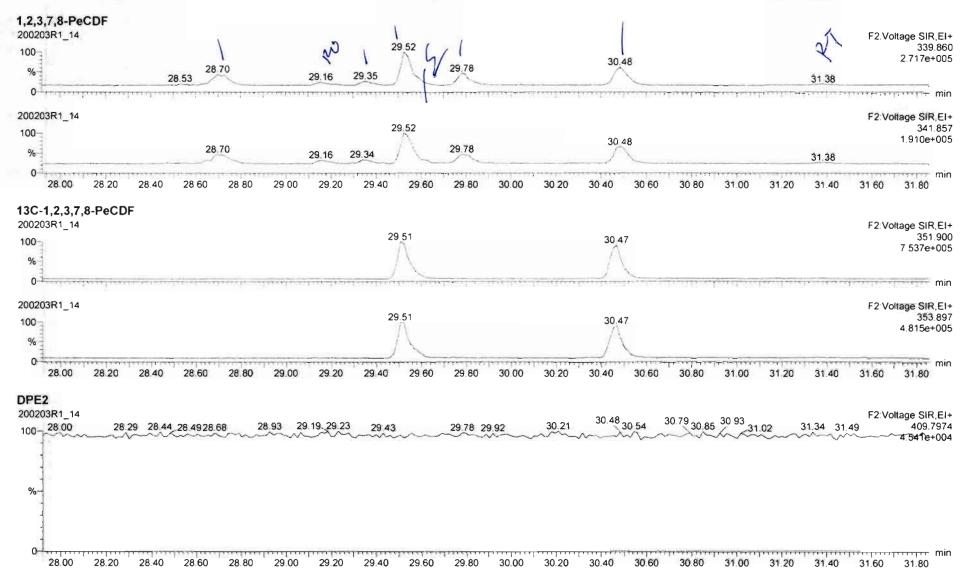


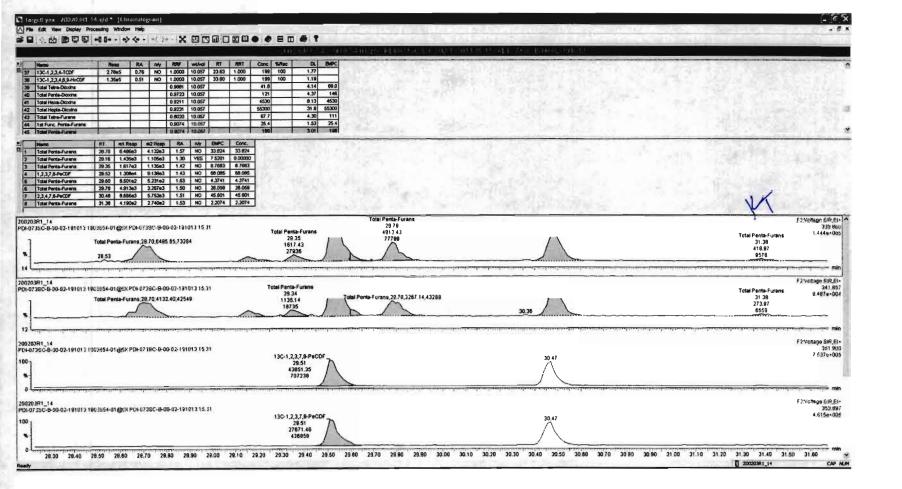


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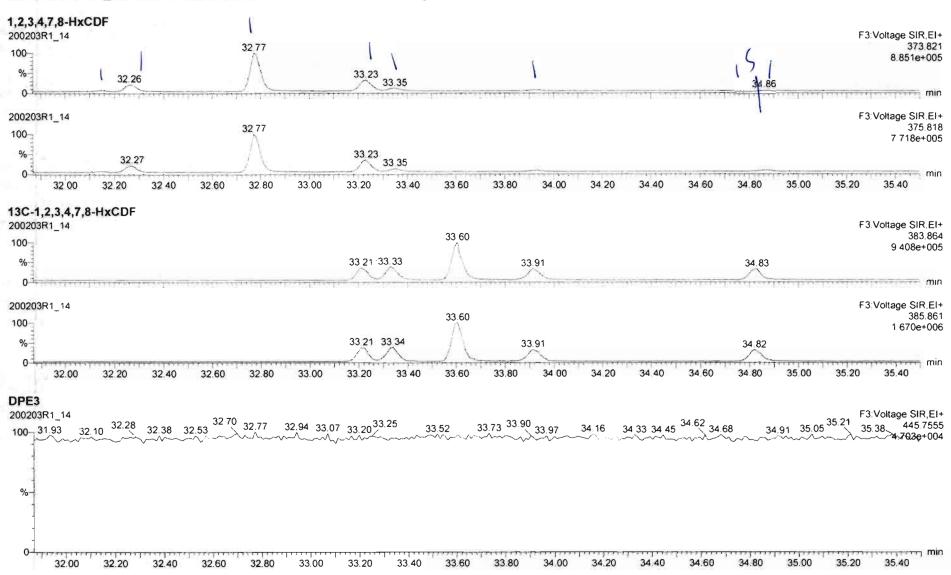


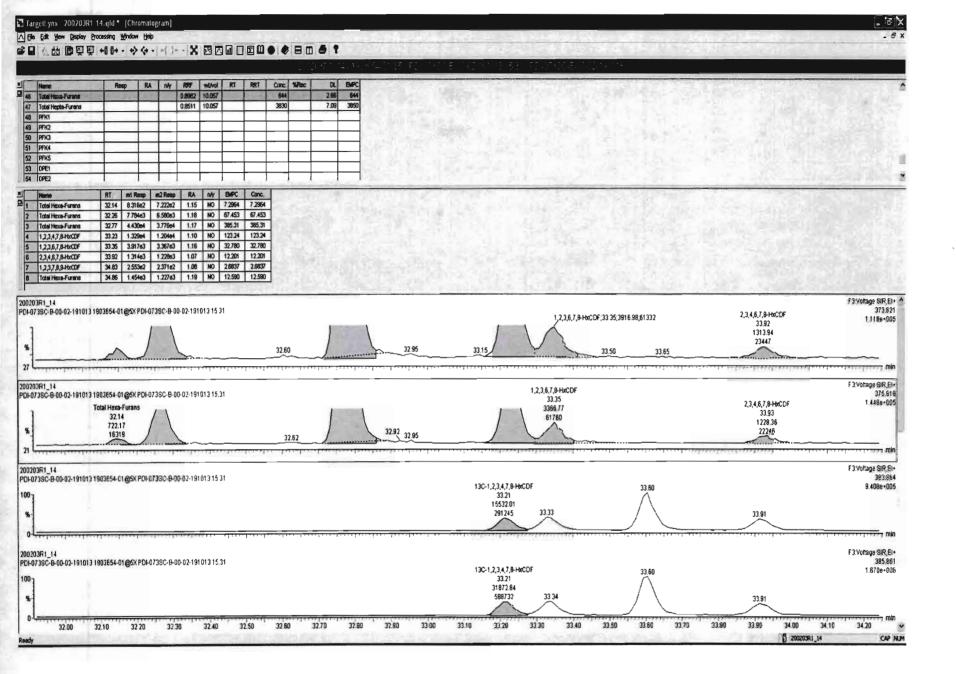


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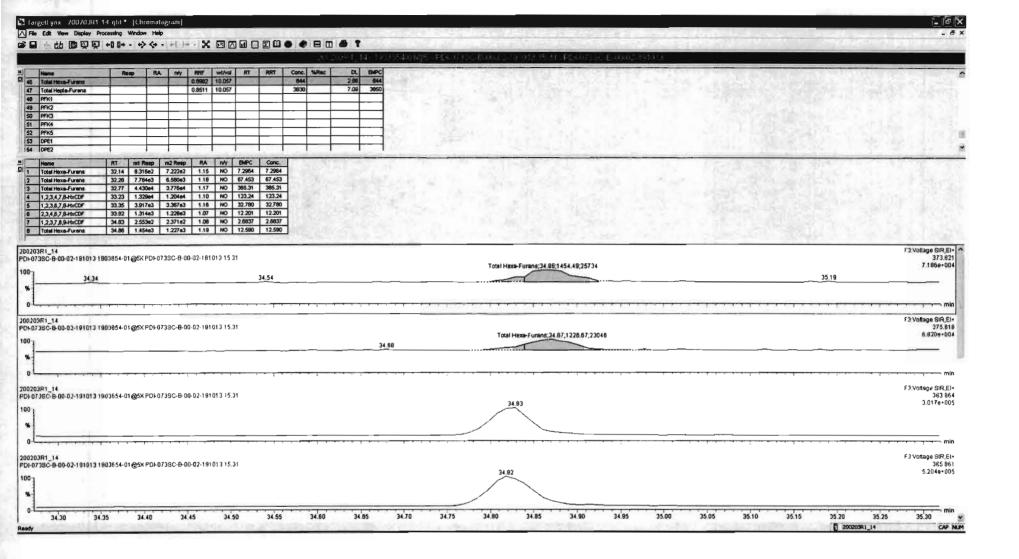
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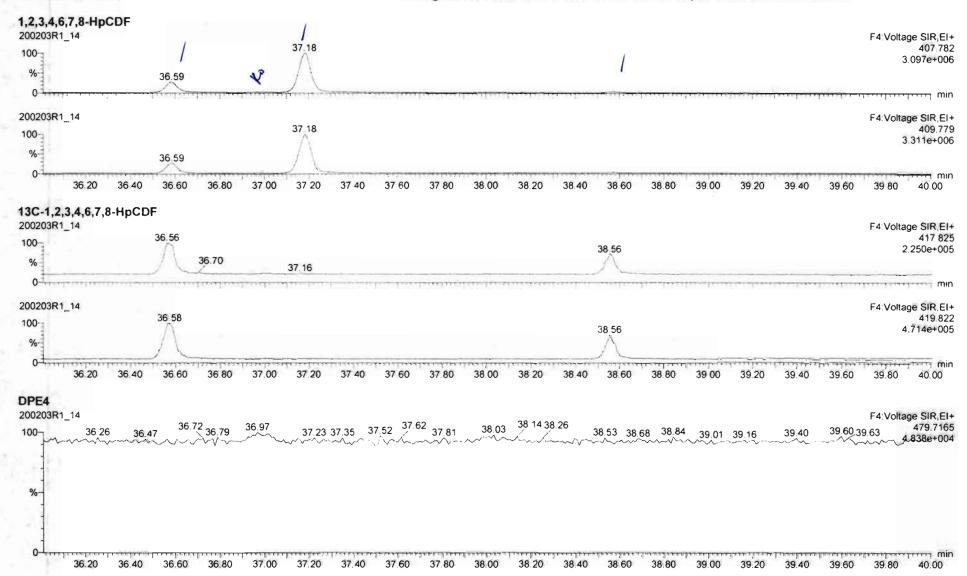
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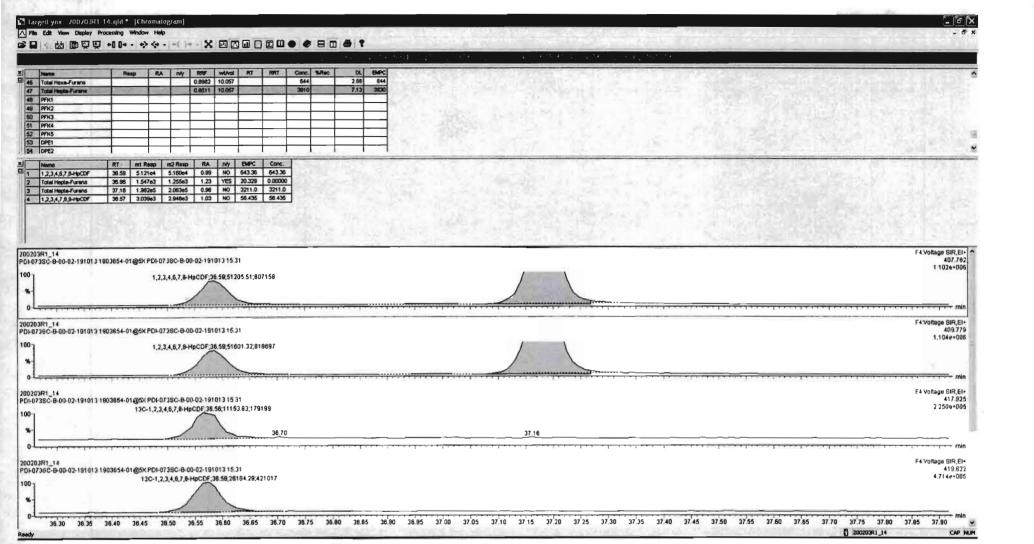


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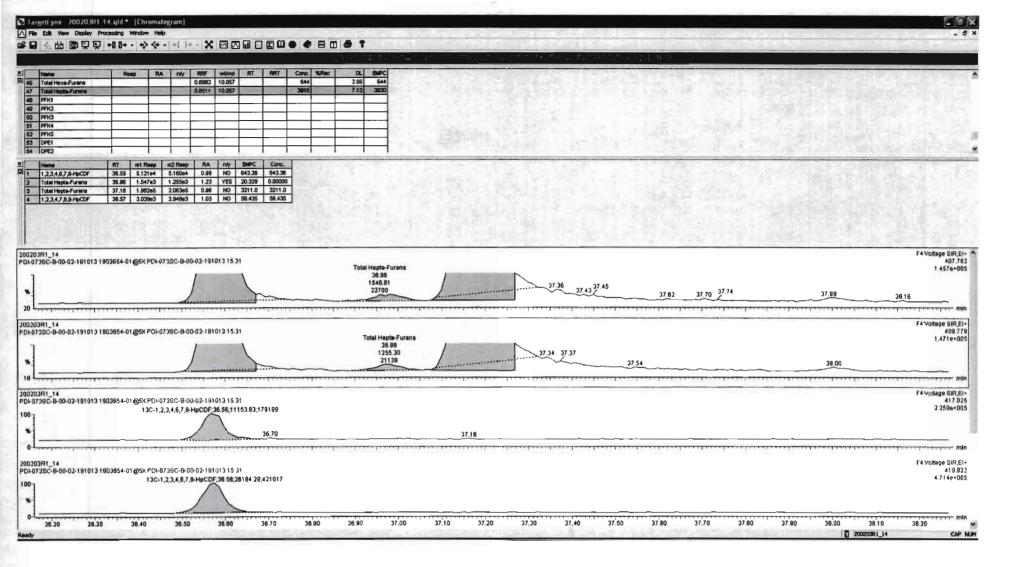
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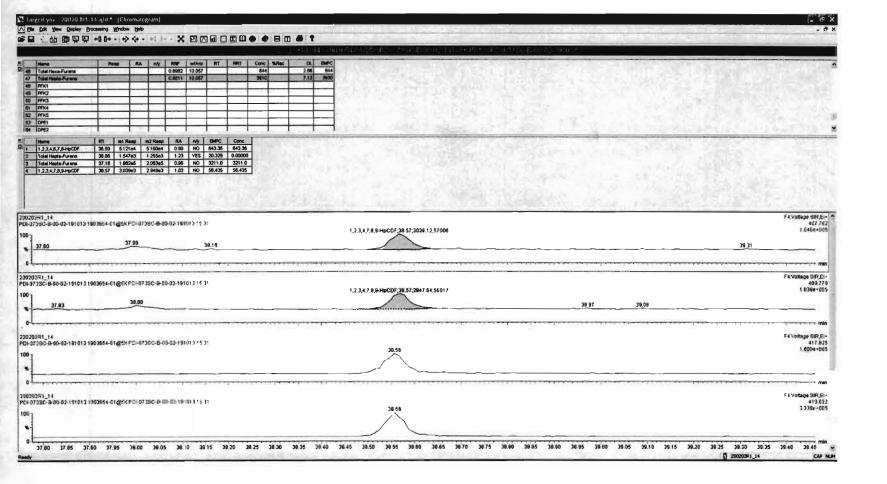




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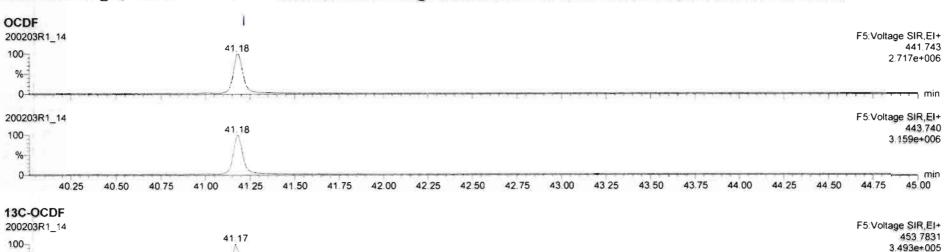
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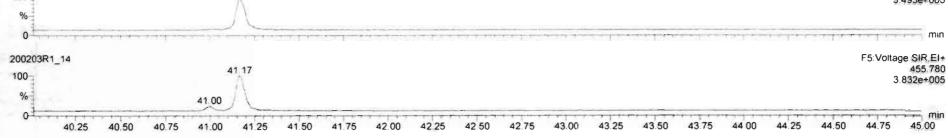


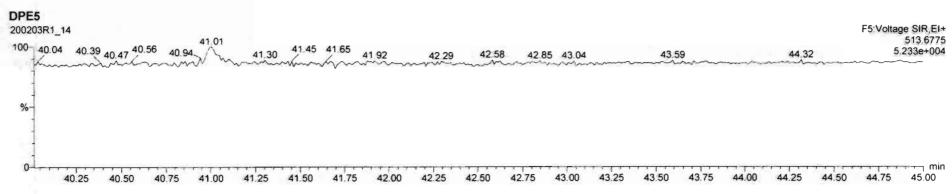
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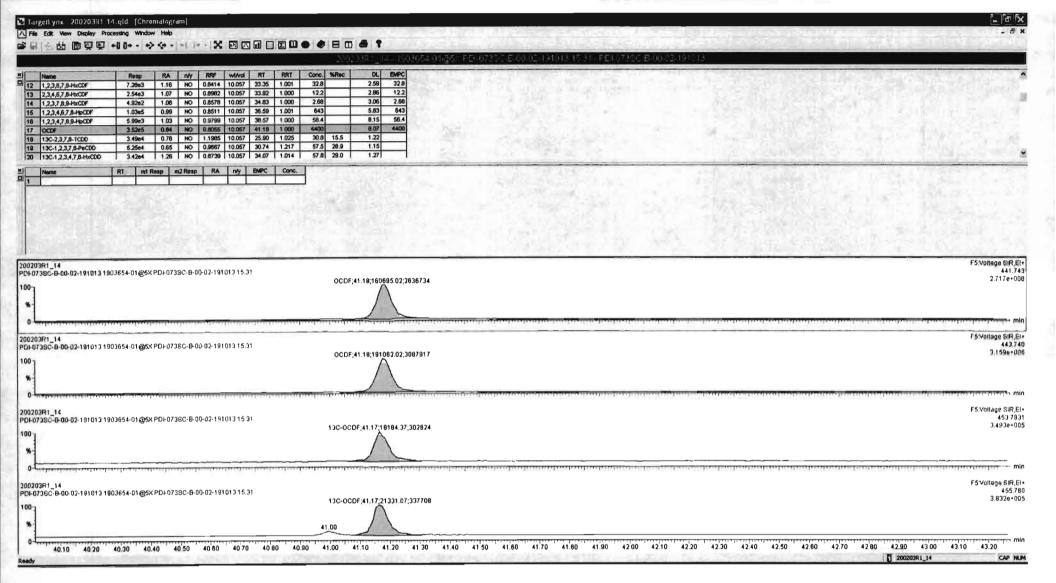
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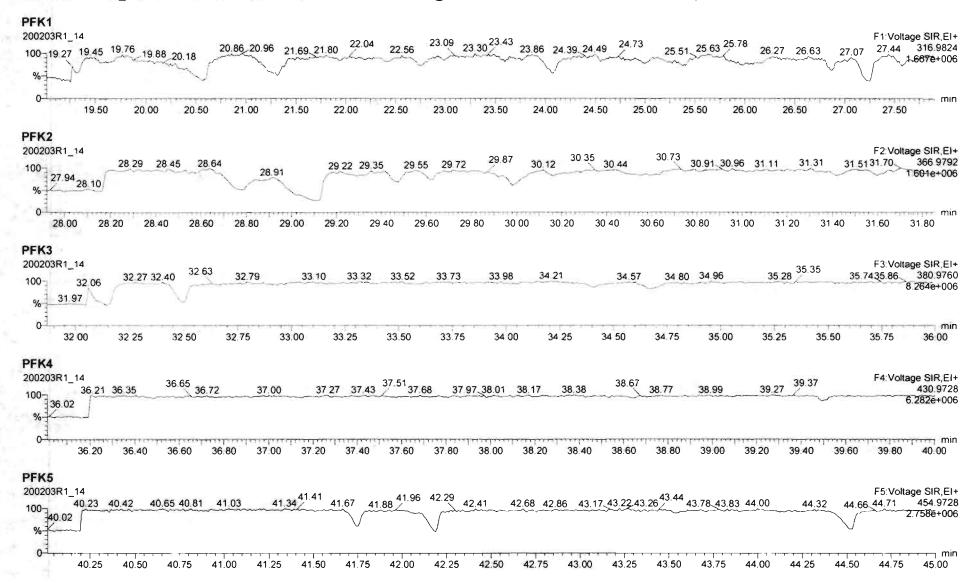


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Untitled

Dataset:

Last Altered: Tuesday, February 04, 2020 10:33:39 Pacific Standard Time Printed: Tuesday, February 04, 2020 10:33:41 Pacific Standard Time



Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-7.qld

Last Altered: Printed: Saturday, February 08, 2020 12:27:16 Pacific Standard Time Saturday, February 08, 2020 12:27:23 Pacific Standard Time

ph 2.8.2020

C7 03/13/2020

Method: Untitled 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013

; #-Name	- Resp	; RA	· n/y	RRF	; wt/vol ;	Pred.RT;	RT	: Pred.RRT	RRT ;	Conc.	- %Rec	DL-	EMPC
1 2,3,7,8-TCDD						_						0.432	
2 1,2,3,7,8-PeCDD	6.62e3	1.67	YES	0.972	10.098	30.734	30.74	1.001	1.001	1.7278		0.308	1.05
3 , 3 1,2,3,4,7,8-HxCDD	4.32e3	1.11	NO	1.07	10.098	34.072	34.07	1.000	1.000	1.2116		0.262	1.21
4 1,2,3,6,7,8-HxCDD	3.39e4	1.17	NO	0.921	10.098	34.168	34.19	1.000	1.001	10.873		0.312	10.9
5 1,2,3,7,8,9-HxCDD	1.17e4	1.25	NO	0.918	10.098	34.490	34.47	1.001	1.000	3.7224		0.299	3.72
6 1,2,3,4,6,7,8-HpCDD	1.44e6	1.02	NO	0.923	10.098	38.024	38.02	1.000	1.000	502.19		1.36	502
7 OCDD	7.90e6	0.88	NO	0.975	10.098	41.123	41.13	1.000	1.000	3826.0		1.07	3830
8 2,3,7,8-TCDF	1.21e4	0.79	NO	0.802	10.098	25.042	25.03	1.001	1.001	3.1123	(2,79)	0.343	3.11
9 1,2,3,7,8-PeCDF	1.45e4	1.45	NO	0.907	10.098	29.498	29.49	1.001	1.001	2.8585	,	0.510	2.86
10 ; 10 2,3,4,7,8-PeCDF	1.06e4	1.58	NO	0.952	10.098	30.456	30.45	1.001	1.000	2.0751		0.491	2.08
11 ,11 1,2,3,4,7,8-HxCDF	1.72e4	1.17	NO	0.862	10.098	33.199	33.22	1.000	1.001	6.3236		0.364	6.32
12 1,2,3,6,7,8-HxCDF	9.02e3	1.18	NO	0.841	10.098	33.326	33.33	1.000	1.000	2.7365		0.306	2.74
13 13 2,3,4,6,7,8-HxCDF	1.42e4	1.19	NO	0.898	10.098	33.936	33.91	1.001	1.000	3.9579		0.293	3.96
14 1,2,3,7,8,9-HxCDF	6.23e2	1.40	NO	0.858	10.098	34.807	34.82	1.000	1.000	0.20968		0.335	0.210
15 1,2,3,4,6,7,8-HpCDF	1.99e5	0.98	NO	0.851	10.098	36.612	36.60	1.001	1.001	78.528		0.481	78.5
16 1,2,3,4,7,8,9-HpCDF	6.90e3	0.90	NO	0.980	10.098	38.588	38.59	1.000	1.000	3.4642		0.536	3.46
17 ; 17 OCDF	4.87e5	0.85	NO	0.806	10.098	41.304	41.31	1.000	1.000	272.82		0.443	273
18 13C-2,3,7,8-TCDD	8.63e5	0.80	NO	1.20	10.098	25.874	25.90	1.026	1.027	97.905	49.4	0.419	
19 13C-1,2,3,7,8-PeCDD	7.81e5	0.63	NO	0.967	10.098	30.650	30.71	1.215	1.218	109.79	55.4	0.297	
20 20 13C-1,2,3,4,7,8-HxCDD	6.60e5	1.25	NO	0.874	10.098	34.063	34.06	1.014	1.014	115.22	58.2	0.249	
21 13C-1,2,3,6,7,8-HxCDD	6.71 e 5	1.26	NO	1.05	10.098	34.164	34.17	1.017	1.017	97.840	49.4	0.208	
22 13C-1,2,3,7,8,9-HxCDD	6.79e5	1.24	NO	0.974	10.098	34.466	34.46	1.026	1.026	106.28	53.7	0.223	
23 23 13C-1,2,3,4,6,7,8-HpCDD 24 24 13C-OCDD	6.13e5	1.01	NO	0.747	10.098	38.027	38.01	1.132	1.132	125.21	63.2	0.332	
24 24 13C-OCDD	8.39e5	0.89	NO	0.707	10.098	40.916	41.12	1.218	1.224	181.16	45.7	0.203	
25 25 13C-2,3,7,8-TCDF	9.59e5	0.77	NO	1.07	10.098	25.049	25.02	0.993	0.992	86.876	43.9	0.519	1
26 ; 26 13C-1,2,3,7,8-PeCDF	1.11e6	1.57	NO	1.00	10.098	29.414	29.48	1.166	1.169	106.94	54.0	0.404	1
27 . 27 13C-2,3,4,7,8-PeCDF	1.06e6	1.56	NO	0.962	10.098	30.372	30.44	1.204	1.207	106.79	53.9	0.420	
28 28 13C-1,2,3,4,7,8-HxCDF	6.25e5	0.51	NO	1.05	10.098	33.190	33.20	0.988	0.988	90.813	45.9	0.266	
29 13C-1,2,3,6,7,8-HxCDF	7.76e5	0.51	NO	1.19	10.098	33.291	33.32	0.991	0.992	99.441	50.2	0.235	
30 30 13C-2,3,4,6,7,8-HxCDF	7.93e5	0.51	NO	1.07	10.098	33.899	33.90	1.009	1.009	113.40	57.3	0.262	
31 31 13C-1,2,3,7,8,9-HxCDF	6.86e5	0.51	NO	0.922	10.098	34.802	34.81	1.036	1.036	113.51	57.3	0.303	

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-7.qld

Last Altered: Printed:

Saturday, February 08, 2020 12:27:16 Pacific Standard Time Saturday, February 08, 2020 12:27:23 Pacific Standard Time

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013

	#-Name	- Resp	; RA	- n/y	RRF	; wt/vol ;	Pred.RT;	RT	Pred.RRT	RRT :	Conc.	- %Rec -	DL-	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.90e5	0.43	NO	0.767	10.098	36.549	36.58	1.088	1.089	117.33	59.2	0.305	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.02e5	0.43	NO	0.552	10.098	38.565	38.59	1.148	1.149	111.15	56.1	0.423	Ì
34 :	34 13C-OCDF	8.78e5	0.89	NO	0.789	10.098	41.151	41.30	1.225	1.230	169.75	42.9	0.207	
7.00	35 37CI-2,3,7,8-TCDD	3.84e5			1.18	10.098	25.907	25.92	1.027	1.027	44.333	56.0	0.194	
	36 13C-1,2,3,4-TCDD	1.46e6	0.79	NO	1.00	10.098	25.080	25.23	1.000	1.000	198.06	100	0.502	
37	37 13C-1,2,3,4-TCDF	2.05e6	0.78	NO	1.00	10.098	23.420	23.67	1.000	1.000	198.06	100	0.553	
38	38 13C-1,2,3,4,6,9-HxCDF	1.30e6	0.51	NO	1.00	10.098	33.520	33.59	1.000	1.000	198.06	100	0.280	
39	39 Total Tetra-Dioxins				0.988	10.098	24.620		0.000		3.1661		0.432	3.17
40	40 Total Penta-Dioxins				0.972	10.098	29.960		0.000		10.968		0.303	16.9
	41 Total Hexa-Dioxins				0.921	10.098	33.635		0.000		141.39		0.305	143
	42 Total Hepta-Dioxins				0.923	10.098	37.640		0.000		1127.7		1.36	1130
/2.0	43 Total Tetra-Furans				0.802	10.098	23.610		0.000		54.516		0.343	56.2
	44 1st Func. Penta-Furans				0.907	10.098	27.090		0.000		43.925		0.106	43.9
45	45 Total Penta-Furans				0.907	10.098	29.275		0.000		18.118		0.513	40.3
	46 Total Hexa-Furans				0.898	10.098	33.555		0.000		96.006		0.310	96.0
47	47 Total Hepta-Furans				0.851	10.098	37.835		0.000		291.62		0.536	292

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Dataset: U:\VG12.PRO\Results\200202R1\200202R1-7.qld

Last Altered: Saturday, February 08, 2020 12:27:16 Pacific Standard Time Saturday, February 08, 2020 12:27:23 Pacific Standard Time

Method: Untitled 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013

Tetra-Dioxins

Name	: RT	m1 Height; m2	Height; m1 Resp	m2 Resp	RA n/y	Resp	Conc.	EMPC:	DL
1 Total Tetra-Dioxins	22.11	2.429e4 2.	.989e4 2.375e3	2.954e3	0.80 NO	5.329e3	1.2372	1.2372	0.432
2 Total Tetra-Dioxins	24.16	1.931e4 2.	.681e4 8.510e2	1.154e3	0.74 NO	2.005e3	0.46540	0.46540	0.432
3 Total Tetra-Dioxins	24.24	3.102e4 3.	.095e4 1.710e3	2.084e3	0.82 NO	3.793e3	0.88071	0.88071	0.432
4 Total Tetra-Dioxins	26.23	2.237e4 2.	.526e4 1.034e3	1.476e3	0.70 NO	2.510e3	0.58282	0.58282	0.432

Penta-Dioxins

	; Name ;	RT :	m1 Height;	m2 Height;	m1 Resp;	m2 Resp	RA n/y	Resp	Conc.	EMPC:	DL
1	Total Penta-Dioxins	28.58	1.140e5	1.563e5	8.033e3	1.147e4	0.70 NO	1.950e4	5.0875	5.0875	0.303
2	Total Penta-Dioxins	29.05	2.752e4	4.521e4	1.845e3	2.634e3	0.70 NO	4.479e3	1.1685	1.1685	0.303
3	Total Penta-Dioxins	29.54	9.603e4	1.544e5	5.654e3	8.426e3	0.67 NO	1.408e4	3.6730	3.6730	0.303
4	Total Penta-Dioxins	29.69	4.642e4	6.671e4	2.536e3	3.500e3	0.72 YES	0.000e0	0.00000	1.4882	0.303
5	Total Penta-Dioxins	29.80	2.815e4	4.353e4	1.480e3	2.504e3	0.59 NO	3.983e3	1.0391	1.0391	0.303
6	·Total Penta-Dioxins	30.04	4.062e4	5.951e4	3.689e3	4.710e3	0.78 YES	0.000e0	0.00000	2.0027	0.303
7	1,2,3,7,8-PeCDD	30.74	8.749e4	5.361e4	4.145e3	2.478e3	1.67 YES	6.623e3	0.00000	1.0537	0.303
8	Total Penta-Dioxins	30.79	8.992e4	3.086e4	6.134e3	1.797e3	3.41 YES	0.000e0	0.00000	0.76417	0.303
9	Total Penta-Dioxins	31.11	1.979e4	2.314e4	1.168e3	1.513e3	0.77 YES	0.000e0	0.00000	0.64348	0.303

Hexa-Dioxins

Name	; RT ;	m1 Height; r	n2 Height ;	m1 Resp;	m2 Resp	RA:	n/y	Resp	Conc.	EMPC:	DL
1 Total Hexa-Dioxins	32.59	2.059e6	1.787e6	1.033e5	8.403e4	1.23	NO	1.874e5	60.148	60.148	0.305
2 Total Hexa-Dioxins	33.15	1.826e5	1.578e5	9.361e3	7.741e3	1.21	NO	1.710e4	5.4901	5.4901	0.305
3 Total Hexa-Dioxins	33.40	1.420e6	1.179e6	9.875e4	8.167e4	1.21	NO	1.804e5	57.915	57.915	0.305
4 Total Hexa-Dioxins	33.52	7.036e4	5.892e4	4.024e3	2.727e3	1.48	YES	0.000e0	0.00000	1.9606	0.305
5 1,2,3,4,7,8-HxCDD	34.07	4.184e4	3.796e4	2.272e3	2.051e3	1.11	NO	4.323e3	1.2116	1.2116	0.262
6 1,2,3,6,7,8-HxCDD	34.19	3.203e5	2.719e5	1.826e4	1.565e4	1.17	NO	3.391e4	10.873	10.873	0.312
7 Total Hexa-Dioxins	34.38	7.459e4	5.701e4	3.501e3	2.827e3	1.24	NO	6.328e3	2.0314	2.0314	0.305
8 1,2,3,7,8,9-HxCDD	34.47	1.151e5	9.094e4	6.506e3	5.208e3	1.25	NO	1.171e4	3.7224	3.7224	0.299

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Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-7.qld

Last Altered:

Saturday, February 08, 2020 12:27:16 Pacific Standard Time

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Saturday, February 08, 2020 12:27:23 Pacific Standard Time

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013

Hepta-Dioxins

	Name	RT	; m1 Height	m2 Height ;	m1 Resp;	m2 Resp	: RA	n/y	Resp	Conc.	EMPC:	DL
1	*Total Hepta-Dioxins	36.98	1.188e7	1.174e7	9.008e5	8.870e5	1.02	NO	1.788e6	625.50	625.50	1.36
2	1,2,3,4,6,7,8-HpCDD	38.02	9.570e6	9.430e6	7.247e5	7.106e5	1.02	NO	1.435e6	502.19	502.19	1.36

Tetra-Furans

Name	: RT :	m1 Height;	m2 Height;	m1 Resp;	m2 Resp	RA:	n/y :	Resp	Conc.	EMPC;	DL
1 Total Tetra-Furans	20.45	7.793e4	1.149e5	6.715e3	8.801e3	0.76	NO	1.552e4	3.9947	3.9947	0.343
2 Total Tetra-Furans	21.13	3.611e5	4.710e5	2.598e4	3.567e4	0.73	NO	6.165e4	15.872	15.872	0.343
3 Total Tetra-Furans	21.56	2.397e4	3.106e4	2.577e3	3.126e3	0.82	NO	5.703e3	1.4682	1.4682	0.343
4 Total Tetra-Furans	21.66	1.544e4	2.222e4	1.440e3	2.153e3	0.67	NO	3.593e3	0.92504	0.92504	0.343
5 Total Tetra-Furans	22.07	5.238e4	8.495e4	5.871e3	8.308e3	0.71	NO	1.418e4	3.6503	3.6503	0.343
6 Total Tetra-Furans	22.68	6.438e4	7.563e4	7.922e3	1.102e4	0.72	NO	1.895e4	4.8777	4.8777	0.343
7 Total Tetra-Furans	22.91	3.091e4	3.712e4	1.161e3	1.447e3	0.80	NO	2.608e3	0.67141	0.67141	0.343
8 Total Tetra-Furans	23.44	3.344e4	5.215e4	3.536e3	5.188e3	0.68	NO	8.725e3	2.2461	2.2461	0.343
9 Total Tetra-Furans	23.64	1.773e5	2.504e5	1.561e4	2.100e4	0.74	NO	3.661e4	9.4263	9.4263	0.343
10 Total Tetra-Furans	24.19	1.638e5	2.520e5	5.655e3	7.488e3	0.76	NO	1.314e4	3.3837	3.3837	0.343
11 Total Tetra-Furans	24.58	2.338e4	1.963e4	1.291e3	1.402e3	0.92	YES	0.000e0	0.00000	0.63879	0.343
12 Total Tetra-Furans	24.79	2.422e4	3.045e4	1.723e3	2.671e3	0.65	YES	0.000e0	0.00000	1.0199	0.343
13 Total Tetra-Furans	24.93	3.176e4	4.525e4	2.415e3	3.310e3	0.73	NO	5.725e3	1.4738	1.4738	0.343
14 2,3,7,8-TCDF	25.03	8.090e4	9.800e4	5.348e3	6.741e3	0.79	NO	1.209e4	3.1123	3.1123	0.343
15 Total Tetra-Furans	25.41	3.659e4	4.798e4	2.197e3	2.719e3	0.81	NO	4.916e3	1.2656	1.2656	0.343
16 Total Tetra-Furans	26.45	2.538e4	3.657e4	1.921e3	2.279e3	0.84	NO	4.200e3	1.0812	1.0812	0.343
17 Total Tetra-Furans	26.65	3.386e4	3.717e4	1.834e3	2.312e3	0.79	NO	4.146e3	1.0674	1.0674	0.343

Penta-Furans function 1

Name	RT :	m1 Height; m2 Height;	m1 Resp;	m2 Resp	RA	n/y	Resp	Conc.	EMPC:	DL
1 1st Func. Penta-Furans	27.04	2.070e6 1.267e6	1.335e5	8.528e4	1.57	NO	2.188e5	43.925	43.925	0.106

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U:\VG12.PRO\Results\200202R1\200202R1-7.qld Dataset:

Saturday, February 08, 2020 12:27:16 Pacific Standard Time Saturday, February 08, 2020 12:27:23 Pacific Standard Time Last Altered: Printed:

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013

Penta-Furans

	Name	; RT ;	m1 Height;	m2 Height	m1 Resp;	m2 Resp	RA	n/y	Resp	Conc	EMPC;	DL
1	Total Penta-Furans	28.39	6.292e4	5.622e4	4.968e3	3.758e3	1.32	NO	0.000e0	0.00000	1.7515	0.513
2	Total Penta-Furans	28.53	5.821e5	3.963e5	4.507e4	3.023e4	1.49	NO	0.000e0	0.00000	15.115	0.513
3	Total Penta-Furans	29.10	4.617e5	2.816e5	2.849e4	1.750e4	1.63	NO	4.599e4	9.2314	9.2314	0.513
4	Total Penta-Furans	29.31	4.201e4	2.598e4	2.194e3	1.507e3	1.46	NO	3.701e3	0.74283	0.74283	0.513
5	1,2,3,7,8-PeCDF	29.49	1.912e5	1.225e5	8.605e3	5.935e3	1.45	NO	1.45 4e 4	2.8585	2.8585	0.510
6	Total Penta-Furans	29.75	1.688e5	1.201e5	9.429e3	6.562e3	1.44	NO	1.599e4	3.2100	3.2100	0.513
7	2,3,4,7,8-PeCDF	30.45	2.929e5	1.952e5	6.505e3	4.108e3	1.58	NO	1.061e4	2.0751	2.0751	0.491
8	Total Penta-Furans	30.47	3.588e5	2.307e5	1.597e4	1.027e4	1.55	NO	0.000e0	0.00000	5.2684	0.513

Hexa-Furans

	Name	RT :	m1 Height;	m2 Height ;	m1 Resp;	m2 Resp	: RA	n/y :	Resp	Conc.	EMPC:	DL
1	Total Hexa-Furans	32.08	3.017e5	2.912e5	1.543e4	1.352e4	1.14	NO	2.895e4	8.8712	8.8712	0.310
2	Total Hexa-Furans	32.22	1.053e6	8.816e5	4.819 e 4	4.099e4	1.18	NO	8.918e4	27.324	27.324	0.310
3	Total Hexa-Furans	32.57	2.124e4	1.667e4	9.282e2	8.461e2	1.10	NO	1.774e3	0.54363	0.54363	0.310
4	Total Hexa-Furans	32.76	1.609e6	1.385e6	7.780e4	6.693e4	1.16	NO	1.447e5	44.344	44.344	0.310
5	Total Hexa-Furans	33.11	1.501e4	1.291e4	7.273e2	6.180e2	1.18	NO	1.345e3	0.41218	0.41218	0.310
6	1,2,3,4,7,8-HxCDF	33.22	1.759e5	1.629e5	9.288e3	7.906e3	1.17	NO	1.719e4	6.3236	6.3236	0.364
7	1,2,3,6,7,8-HxCDF	33.33	9.347e4	7.884e4	4.877e3	4.139e3	1.18	NO	9.016e3	2.7365	2.7365	0.306
8	2,3,4,6,7,8-HxCDF	33.91	1.412e5	1.230e5	7.738e3	6.487e3	1.19	NO	1.422e4	3.9579	3.9579	0.293
9	1,2,3,7,8,9-HxCDF	34.82	1.692e4	1.217e4	3.632e2	2.600e2	1.40	NO	6.232e2	0.20968	0.20968	0.335
10	Total Hexa-Furans	34.85	4.759 e 4	3.657e4	2.275e3	1.912e3	1.19	NO	4.187e3	1.2828	1.2828	0.310

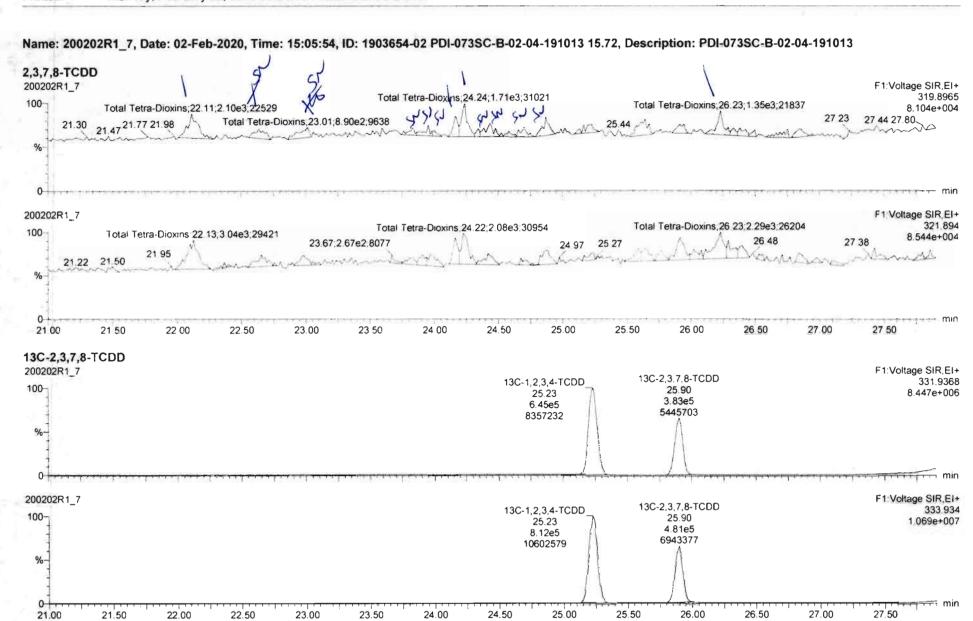
Hepta-Furans

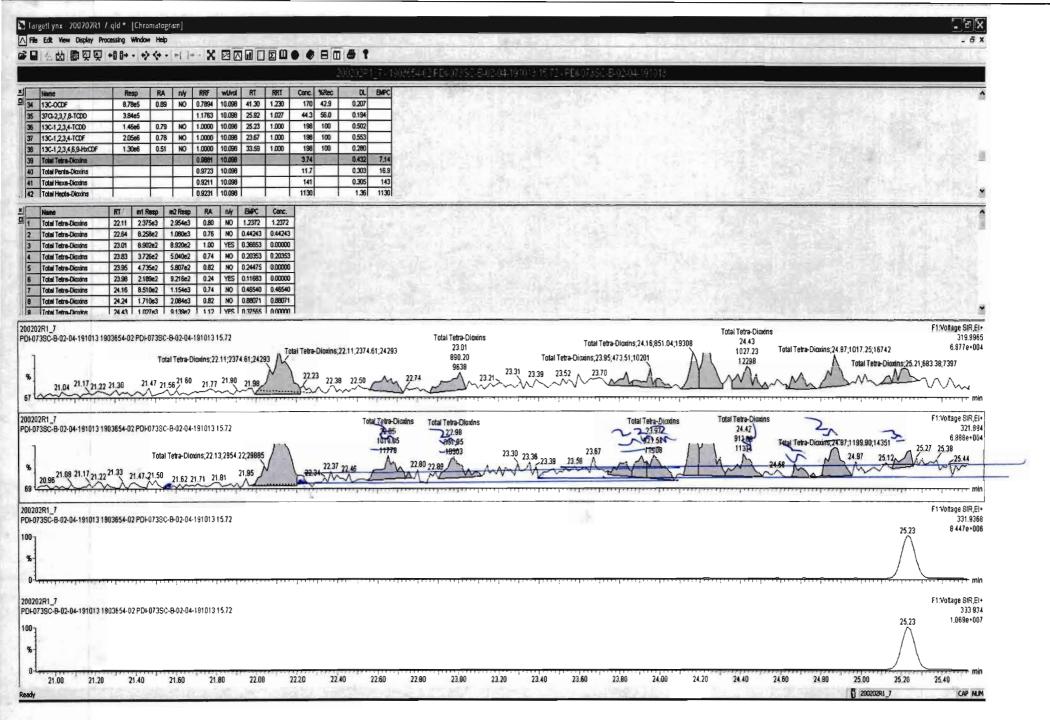
Name	RT :	m1 Height	m2 Height ;	m1 Resp;	m2 Resp	RA	n/y	Resp	Conc.	EMPC,	DL
1 1,2,3,4,6,7,8-HpCDF	36.60	1.390e6	1.405e6	9.866e4	1.004e5	0.98	NO	1.991e5	78.528	78.528	0.481
2 Total Hepta-Furans	37.19	2.793e6	2.867e6	2.214e5	2.256e5	0.98	NO	4.470e5	209.62	209.62	0.536
3 1,2,3,4,7,8,9-HpCDF	38.59	5.628e4	6.116e4	3.266e3	3.630e3	0.90	NO	6.897e3	3.4642	3.4642	0.536

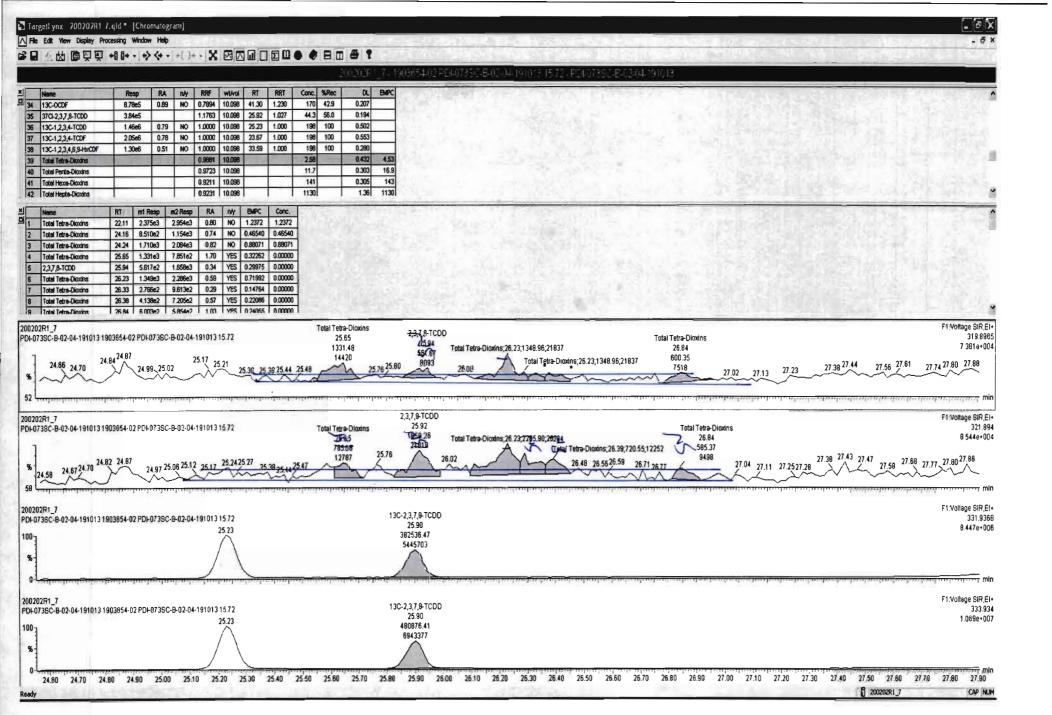
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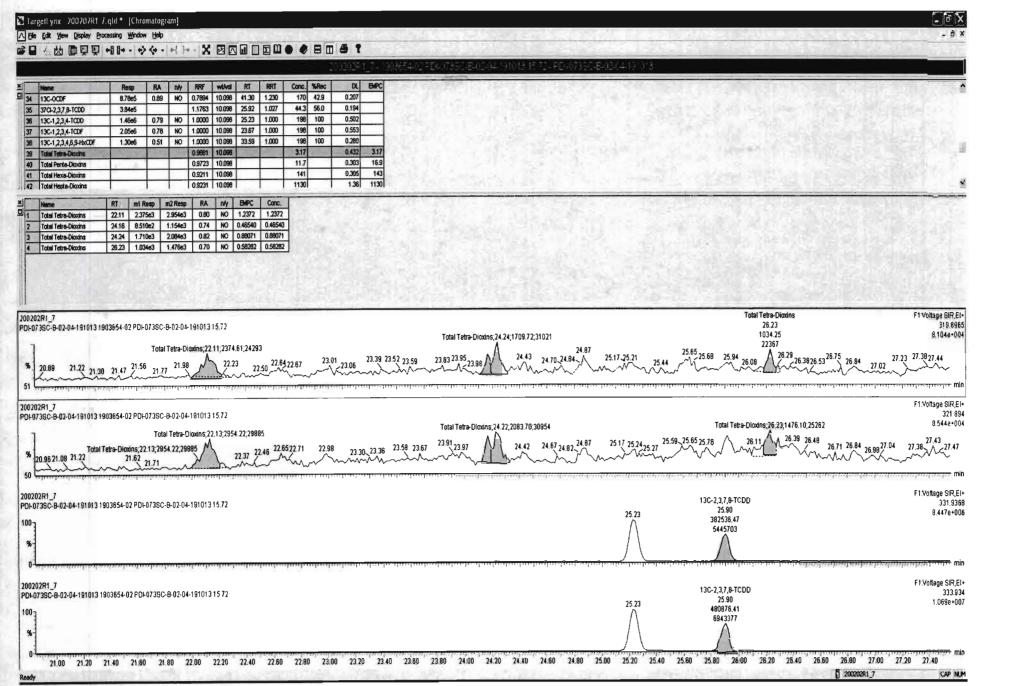
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Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time





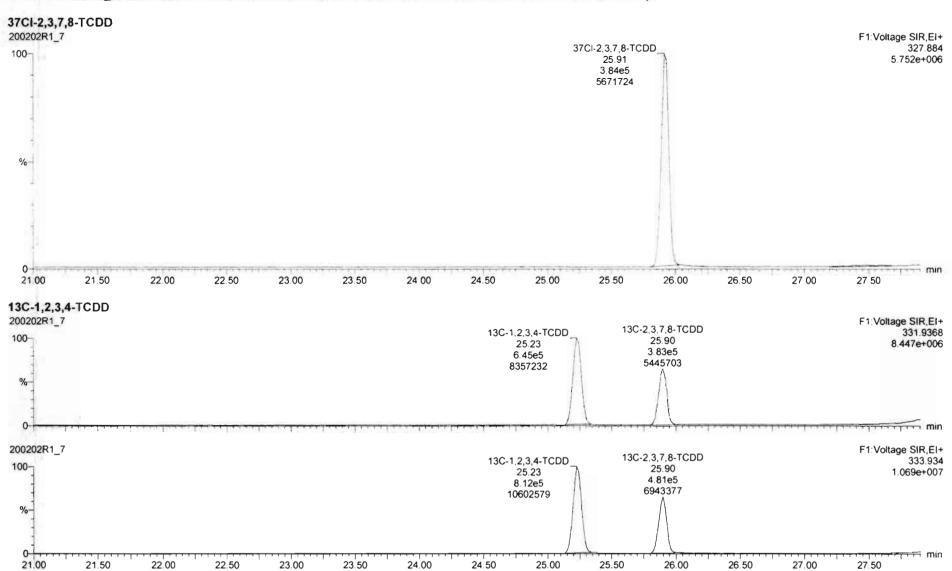




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Name: 200202R1 7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013



Work Order 1903654

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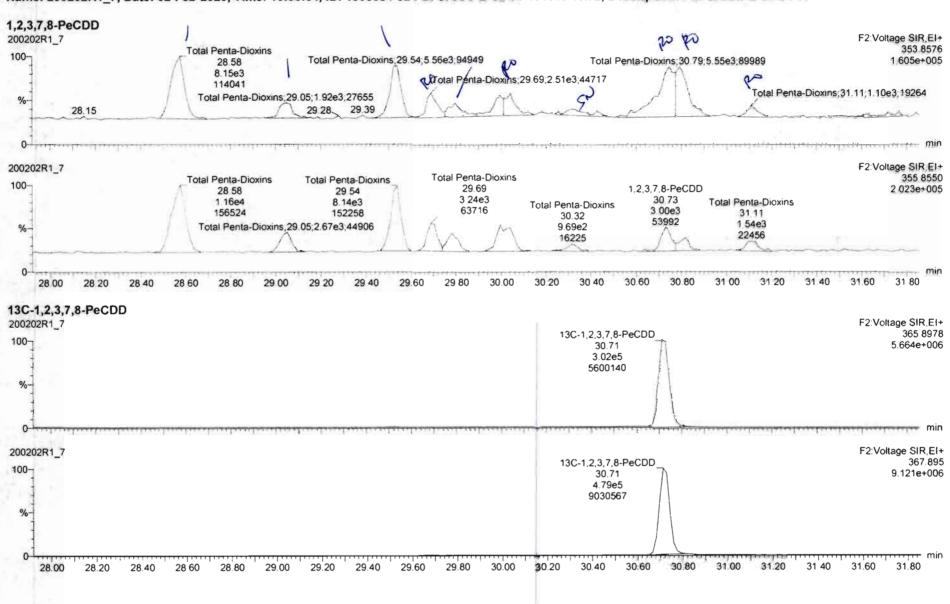
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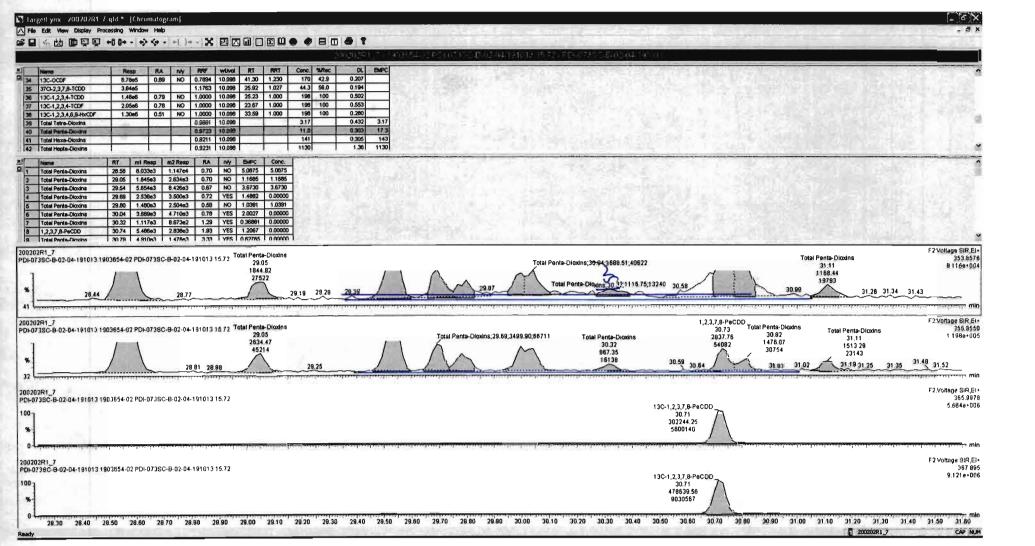
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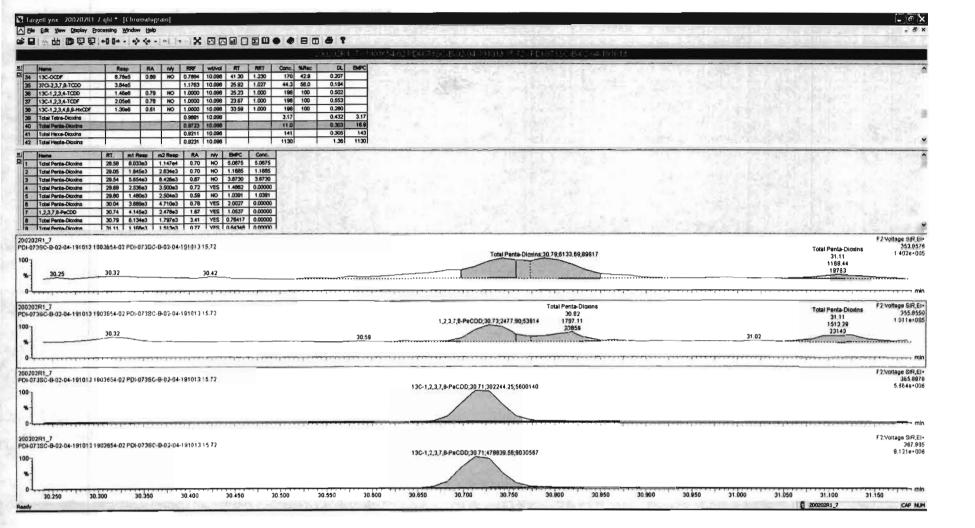
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Name: 200202R1 7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013





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33.40

33.60

33.80

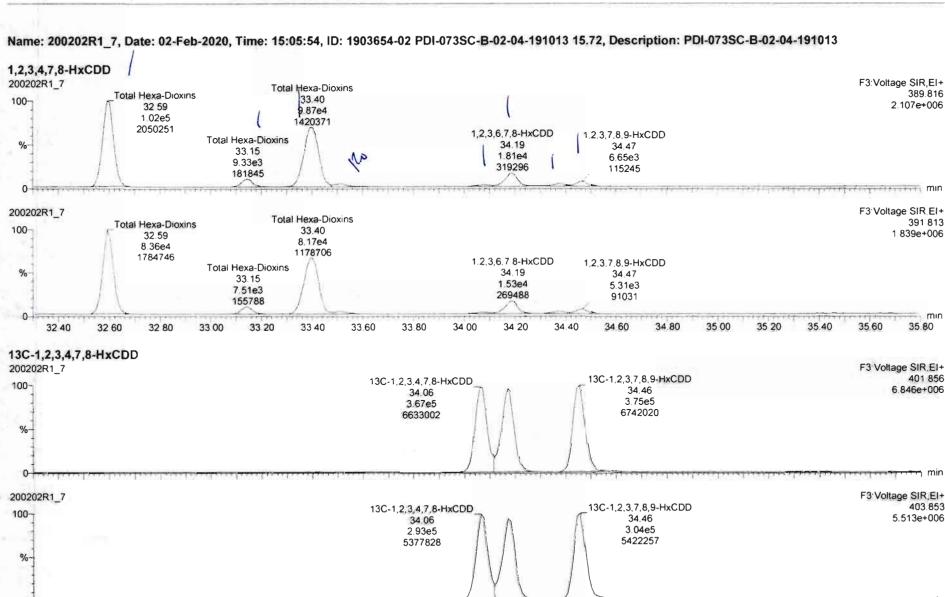
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Last Altered: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time



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35.00

35.20

35.40

32.60

32.80

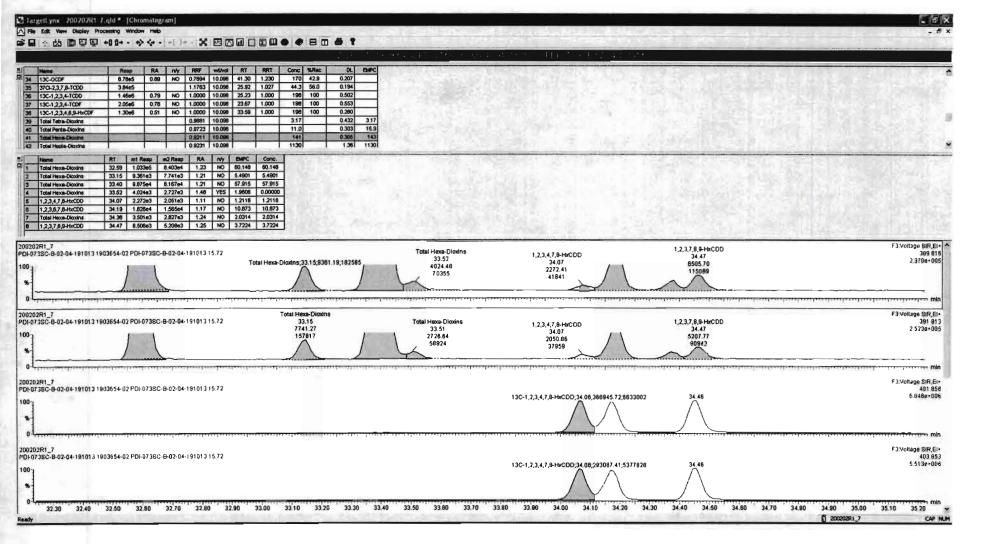
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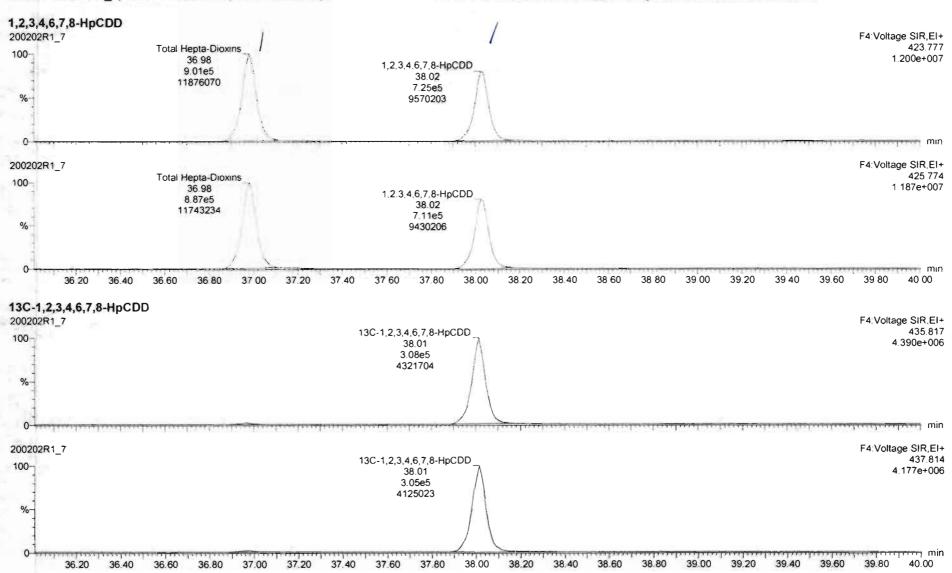


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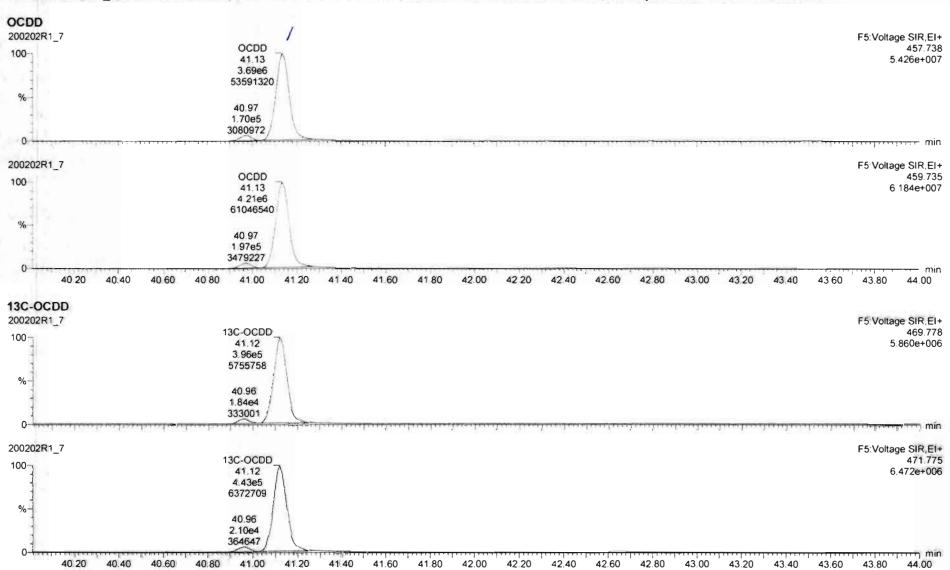
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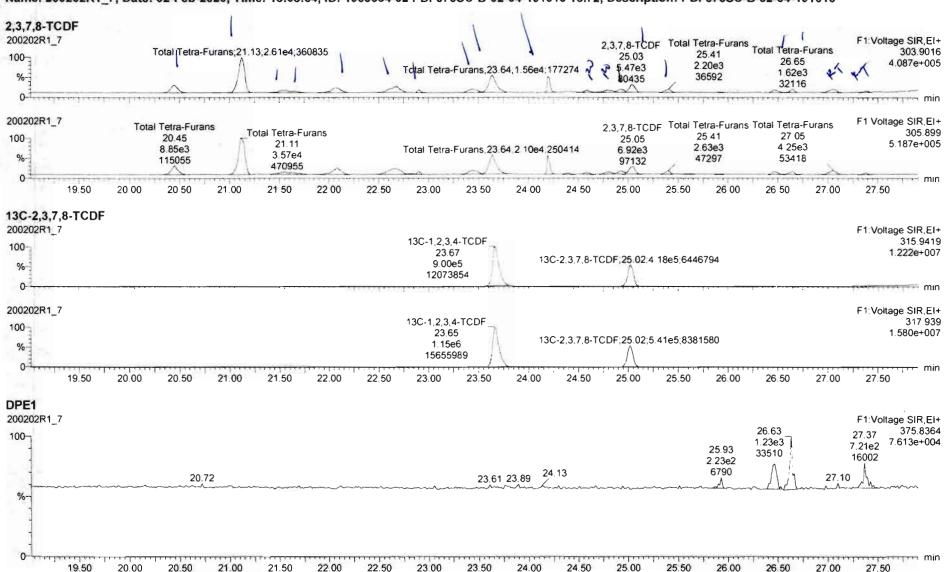
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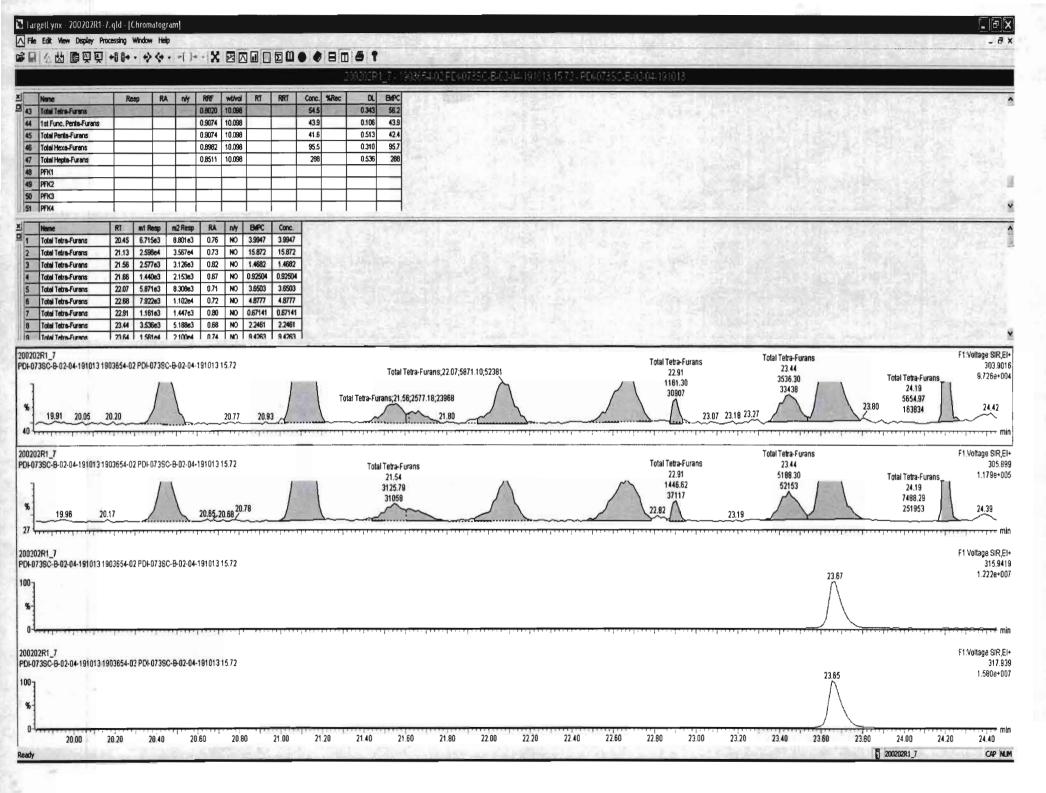


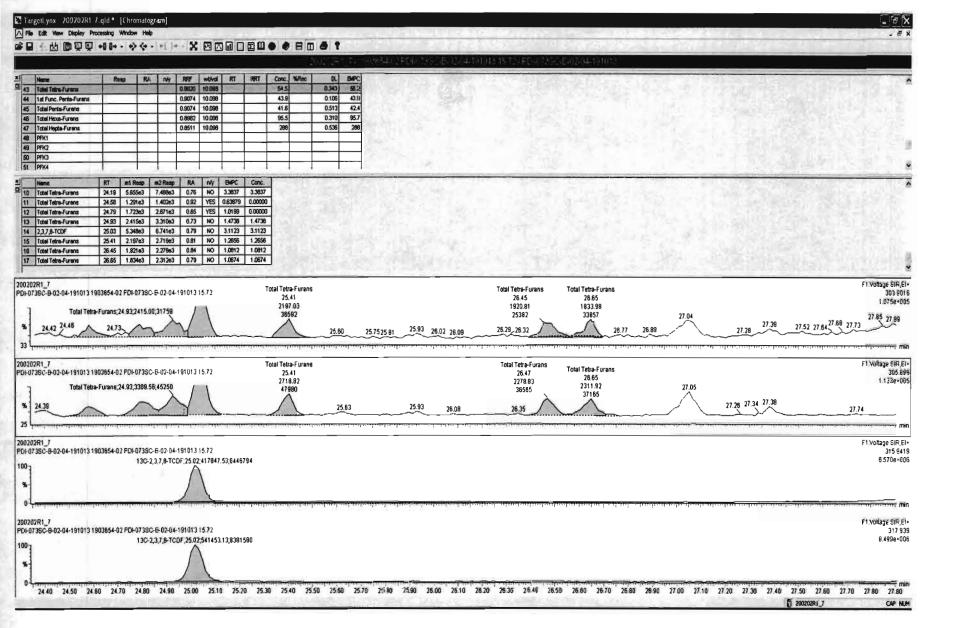
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Name: 200202R1 7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013





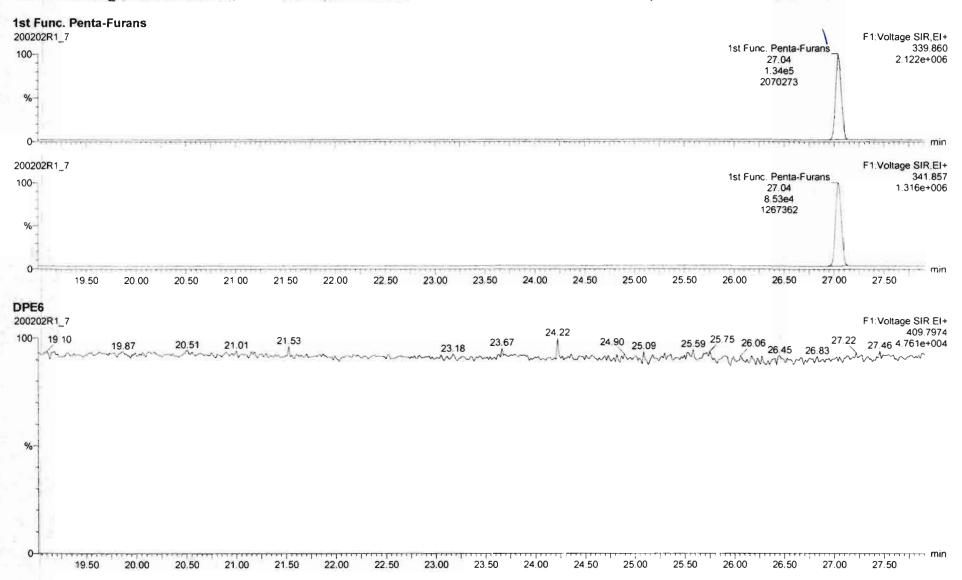


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Last Altered: Monday, February 03, 2020 09:34:05 Pacific Standard Time Printed: Monday, February 03, 2020 09:34:09 Pacific Standard Time

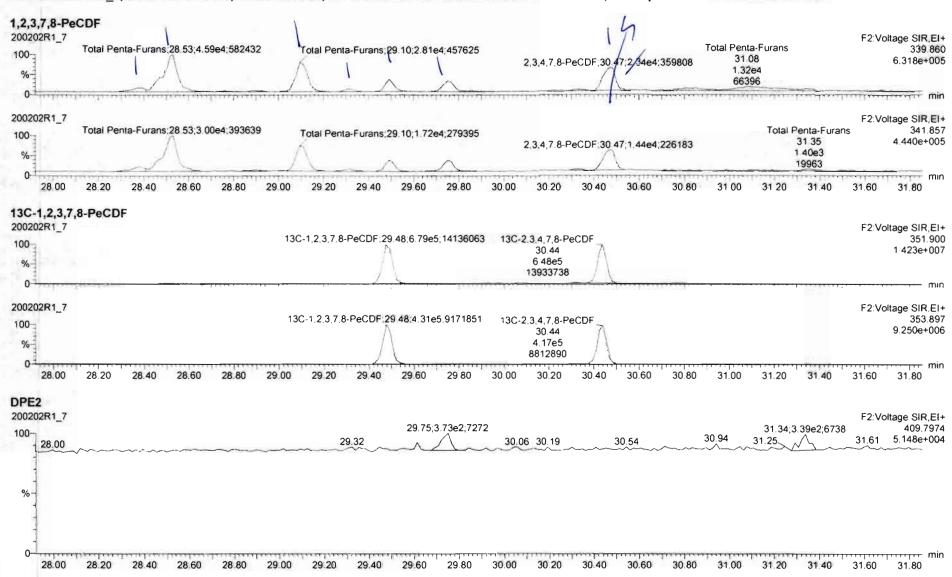
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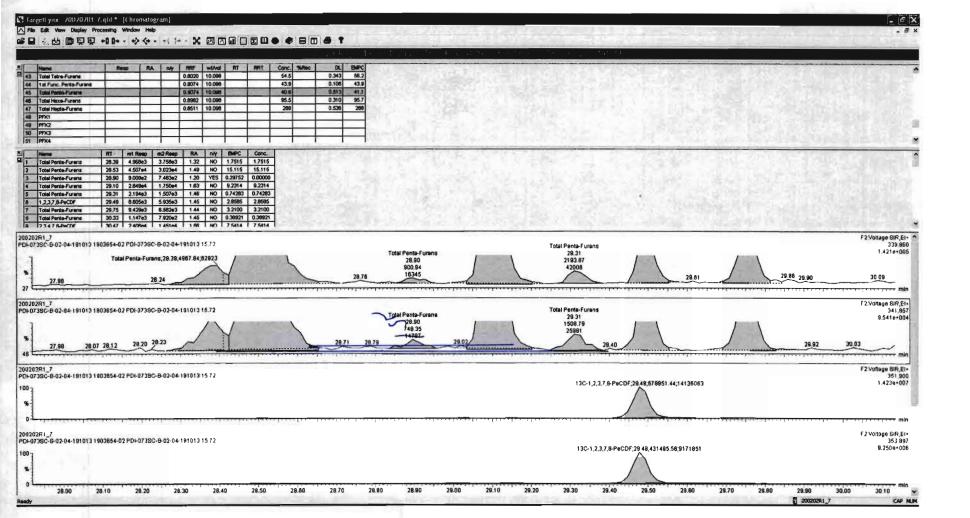


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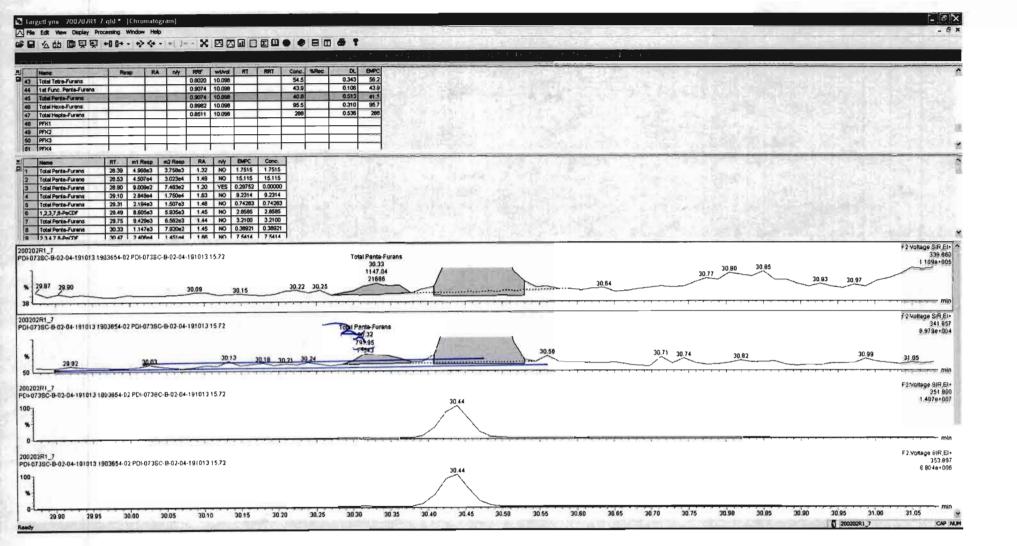
Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013

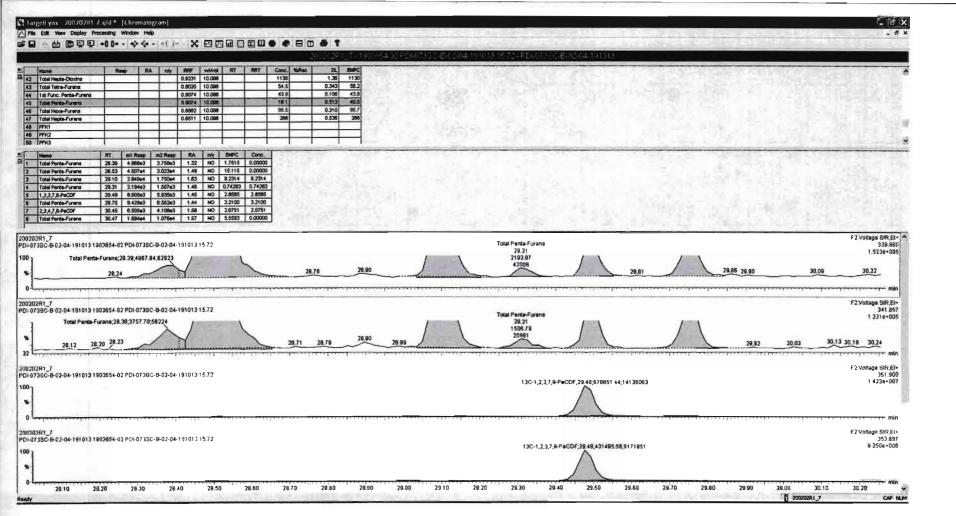




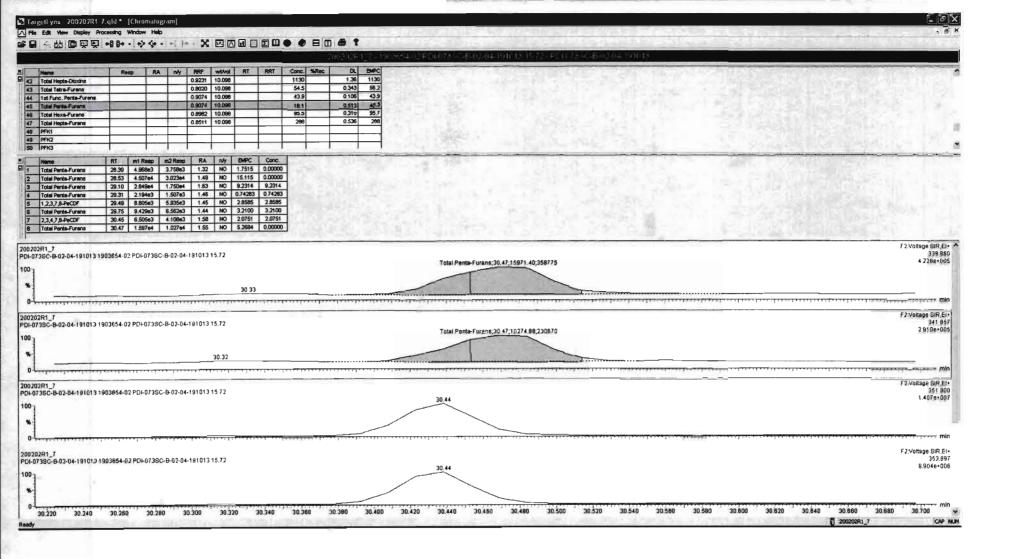
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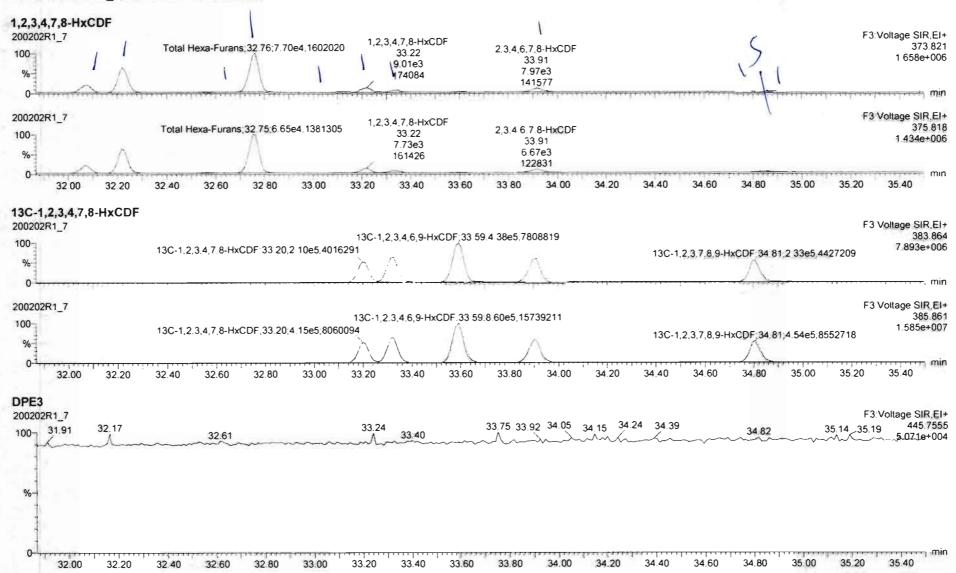


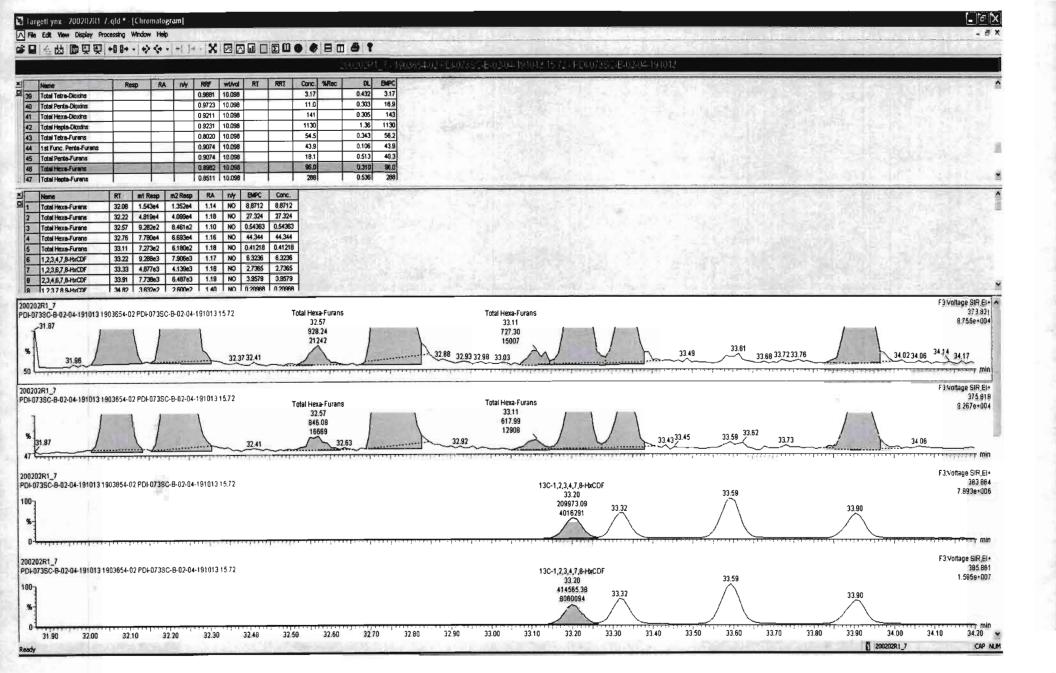
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Untitled

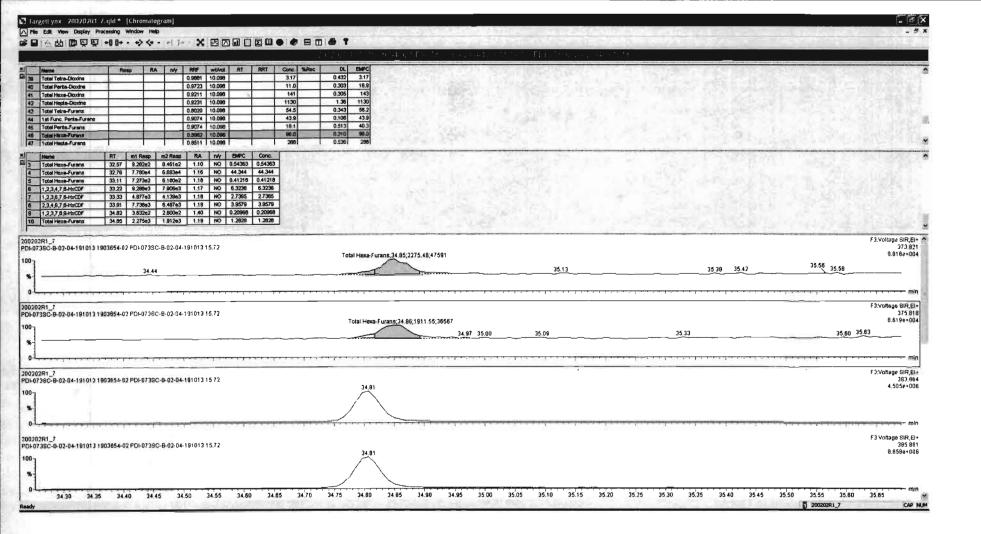
Last Altered: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013





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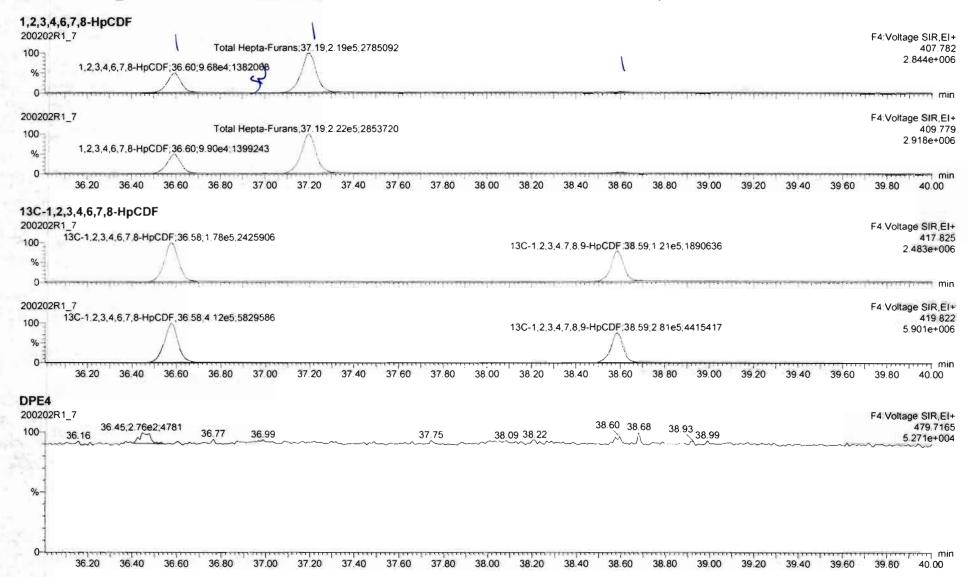


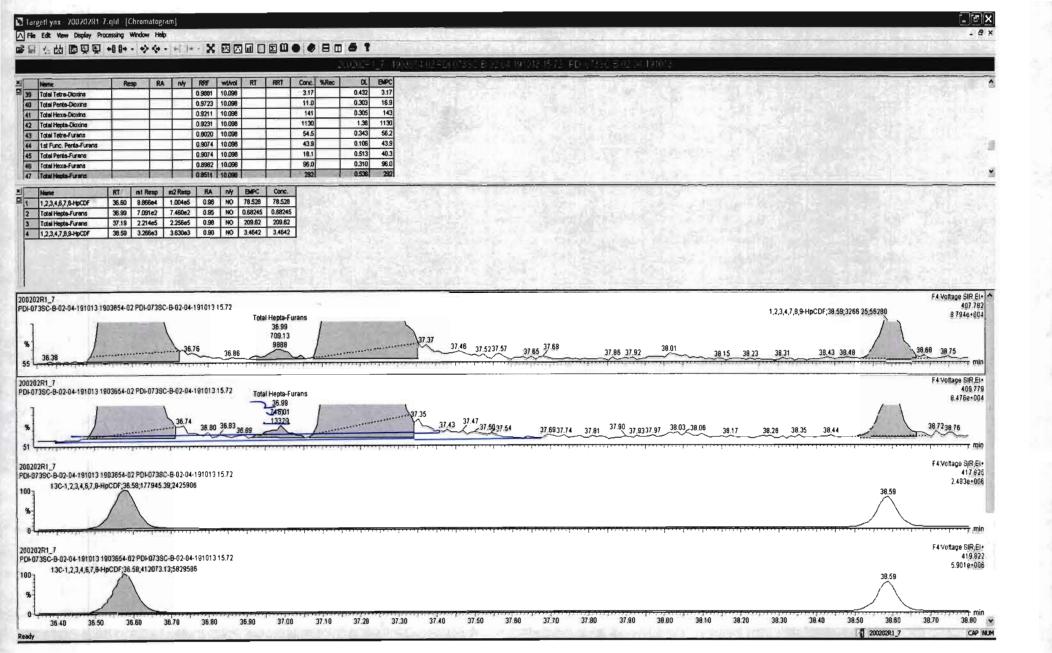
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Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15:72, Description: PDI-073SC-B-02-04-191013



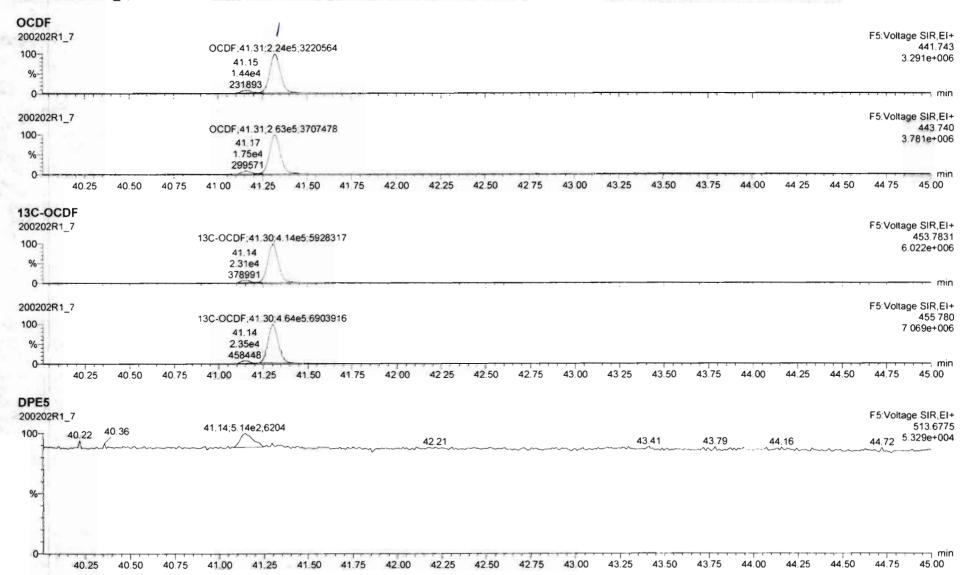


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Untitled

Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

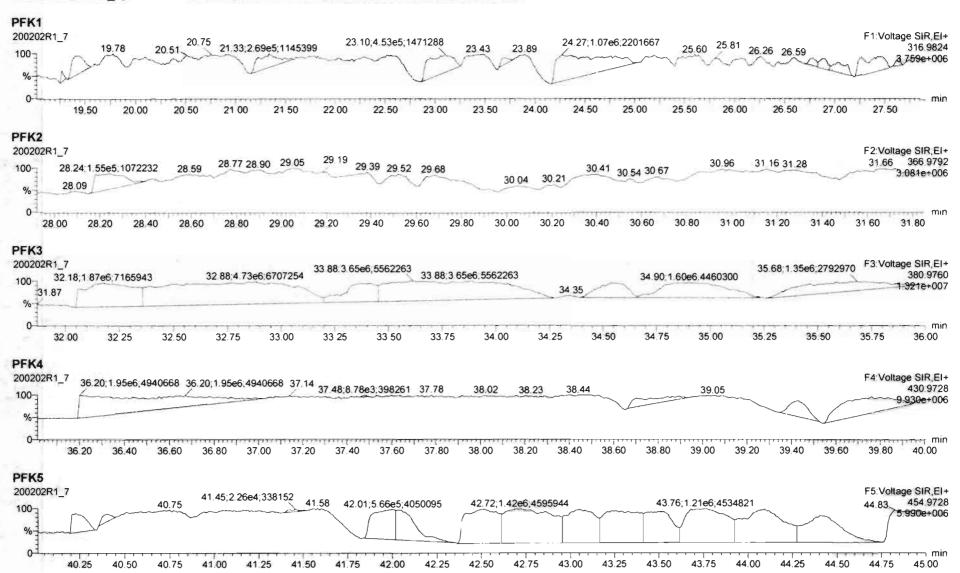
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Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

Name: 200202R1_7, Date: 02-Feb-2020, Time: 15:05:54, ID: 1903654-02 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013



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U:\VG12.PRO\Results\200202R1\200202R1-8.qld Dataset:

Last Altered: Monday, February 10, 2020 15:45:35 Pacific Standard Time Monday, February 10, 2020 15:46:08 Pacific Standard Time Printed:

HC 2.10.2020

C7 03/13/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_8, Date: 02-Feb-2020, Time: 15:52:51, ID: 1903654-03 PDI-073SC-B-04-06-191013 12.66, Description: PDI-073SC-B-04-06-191013

Table 1	#-Name	Resp	; RA	n/y	; RRF	: wt/vol	Pred.RT:	RT	Pred.RRT	RRT ;	Conc.	- %Rec -	DL-	EMPC
100000000	1 2,3,7,8-TCDD			NO	0.988	10.091	25.856		1.001				0.237	
2	2 1,2,3,7,8-PeCDD			NO	0.972	10.091	30.703		1.001				0.623	
3	3 1,2,3,4,7,8-HxCDD			NO	1.07	10.091	34.050		1.000				0.333	
4	4 1,2,3,6,7,8-HxCDD	2.30e3	1.66	YES	0.921	10.091	34.147	34.16	1.000	1.000	0.87444		0.362	0.735
5	5 1,2,3,7,8,9-HxCDD	1.18e3	1.77	YES	0.918	10.091	34.458	34.43	1.001	1.000	0.52463		0.285	0.424
6	6 1,2,3,4,6,7,8-HpCDD	5.52e4	1.02	NO	0.923	10.091	38.003	38.00	1.000	1.000	29.651		0.873	29.7
7	7 OCDD	3.68e5	0.88	NO	0.975	10.091	41.165	41.18	1.000	1.000	362.00		1.34	362
8	8 2,3,7,8-TCDF	1.78e3	1.05	YES	0.802	10.091	24.967	24.97	1.001	1.001	0,20678		0.221	0.265
9	9 1,2,3,7,8-PeCDF			NO	0.907	10.091	29.483		1.001				0.585	
10	10 2,3,4,7,8-PeCDF			NO	0.952	10.091	30.422		1.001				0.377	
11	11 1,2,3,4,7,8-HxCDF			NO	0.862	10.091	33.167		1.000				0.287	
12	12 1,2,3,6,7,8-HxCDF			NO	0.841	10.091	33.294		1.000				0.288	
13	13 2,3,4,6,7,8-HxCDF			NO	0.898	10.091	33.904		1.001				0.382	
14	14 1,2,3,7,8,9-HxCDF			NO	0.858	10.091	34.786		1.000				0.386	
15	15 1,2,3,4,6,7,8-HpCDF	9.10e3	0.97	NO	0.851	10.091	36.580	36.54	1.001	1.000	5.2394		0.370	5.24
16	16 1,2,3,4,7,8,9-HpCDF			NO	0.980	10.091	38.567		1.000				0.491	
17	17 OCDF	1.66e4	0.84	NO	0.806	10.091	41.346	41.36	1.000	1.000	18.987		0.721	19.0
18	18 13C-2,3,7,8-TCDD	1.15e6	0.78	NO	1.20	10.091	25.813	25.83	1.026	1.026	115.72	58.4	0.347	
19	19 13C-1,2,3,7,8-PeCDD	7.44e5	0.63	NO	0.967	10.091	30.577	30.68	1.215	1.219	92.758	46.8	0.259	
20	20 13C-1,2,3,4,7,8-HxCDD	4.56e5	1.35	NO	0.874	10.091	34.031	34.04	1.014	1.014	67.554	34.1	0.210	
21	21 13C-1,2,3,6,7,8-HxCDD	5.65e5	1.21	NO	1.05	10.091	34.132	34.15	1.017	1.017	69.974	35.3	0.176	
22	22 13C-1,2,3,7,8,9-HxCDD	4.85e5	1.25	NO	0.974	10.091	34.434	34.42	1.026	1.026	64.503	32.5	0.189	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.00e5	1.05	NO	0.747	10.091	37.991	37.99	1.132	1.132	69.284	35.0	0.254	
24	24 13C-OCDD	4.13e5	0.87	NO	0.707	10.091	40.877	41.17	1.218	1.227	75.818	19.1	0.176	
25	25 13C-2,3,7,8-TCDF	1.44e6	0.75	NO	1.07	10.091	24.990	24.94	0.993	0.991	109.79	55.4	0.606	
26	26 13C-1,2,3,7,8-PeCDF	8.51e5	1.56	NO	1.00	10.091	29.344	29.46	1.166	1.171	69.169	34.9	0.338	
27	27 13C-2,3,4,7,8-PeCDF	1.00e6	1.61	NO	0.962	10.091	30.300	30.39	1.204	1.208	84.678	42.7	0.353	
28	28 13C-1,2,3,4,7,8-HxCDF	6.28e5	0.50	NO	1.05	10.091	33.158	33.17	0.988	0.988	77.602	39.2	0.281	
29	29 13C-1,2,3,6,7,8-HxCDF	6.57e5	0.51	NO	1.19	10.091	33.259	33.28	0.991	0.992	71.492	36.1	0.247	
30	30 13C-2,3,4,6,7,8-HxCDF	5.08e5	0.51	NO	1.07	10.091	33.866	33.87	1.009	1.009	61.771	31.2	0.276	
31	31 13C-1,2,3,7,8,9-HxCDF	4.73e5	0.51	NO	0.922	10.091	34.769	34.79	1.036	1.037	66.442	33.5	0.319	

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-8.qld

Last Altered:

Monday, February 10, 2020 15:45:35 Pacific Standard Time Monday, February 10, 2020 15:46:08 Pacific Standard Time

Printed:

Name: 200202R1_8, Date: 02-Feb-2020, Time: 15:52:51, ID: 1903654-03 PDI-073SC-B-04-06-191013 12.66, Description: PDI-073SC-B-04-06-191013

	#-Name	10-20	Resp	; R/	4	n/y	; RRF	; wt/vol ;	Pred.RT;	RT	; Pred.RRT;	RRT	Conc.	- %Rec -	DL-	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF		4.04e5	0.4	2	NO	0.767	10.091	36.514	36.54	1.088	1.089	68.296	34.5	0.226	
33	33 13C-1,2,3,4,7,8,9-HpCDF		2.76e5	0.4	4	NO	0.552	10.091	38.528	38.57	1.148	1.149	64.844	32.7	0.314	
34	34 13C-OCDF		4.31e5	0.9	3	NO	0.789	10.091	41.112	41.35	1.225	1.232	70.752	17.8	0.158	
	35 37CI-2,3,7,8-TCDD		4.63e5				1.18	10.091	25.845	25.84	1.027	1.027	47.499	59.9	0.116	
36	36 13C-1,2,3,4-TCDD		1.64e6	0.7	9	NO	1.00	10.091	25.080	25.17	1.000	1.000	198.19	100	0.416	
37	37 13C-1,2,3,4-TCDF		2.43e6	0.7	9	NO	1.00	10.091	23.420	23.57	1.000	1.000	198.19	100	0.646	
38	38 13C-1,2,3,4,6,9-HxCDF		1.53e6	0.5	2	NO	1.00	10.091	33.520	33.56	1.000	1.000	198.19	100	0.294	
20	39 Total Tetra-Dioxins						0.988	10.091	24.620		0.000				0.108	
40	40 Total Penta-Dioxins						0.972	10.091	29.960		0.000		0.00000		0.255	0.614
41	41 Total Hexa-Dioxins						0.921	10.091	33.635		0.000		8.0497		0.322	9.68
42	42 Total Hepta-Dioxins						0.923	10.091	37.640		0.000		80.621		0.873	80.6
43	43 Total Tetra-Furans						0.802	10.091	23.610		0.000		8.8206		0.221	9.29
44	44 1st Func. Penta-Furans						0.907	10.091	27.090		0.000		6.1425		0.141	6.14
45	45 Total Penta-Furans						0.907	10.091	29.275		0.000		3.1495		0.483	3.54
46	46 Total Hexa-Furans						0.898	10.091	33.555		0.000		4.4019		0.317	6.47
47	47 Total Hepta-Furans						0.851	10.091	37.835		0.000		19.254		0.449	19.3

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Dataset: U:\VG12.PRO\Results\200202R1\200202R1-8.qld

Last Altered: Monday, February 10, 2020 15:45:35 Pacific Standard Time Printed: Monday, February 10, 2020 15:46:08 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_8, Date: 02-Feb-2020, Time: 15:52:51, ID: 1903654-03 PDI-073SC-B-04-06-191013 12.66, Description: PDI-073SC-B-04-06-191013

Tetra-Dioxins

Name	RT	m1 Height; m2 Height;	m1 Resp; m2 Resp	· RA : n/y :	Resp	Conc.	EMPC'	DL
1						 		

Penta-Dioxins

	Name	RT :	m1 Height	m2 Height :	m1 Resp;	m2 Resp	- RA	n/y	Resp	Conc.	EMPC;	DL
1	Total Penta-Dioxins	28.52	1.218e4	2.317e4	8.657e2	1.722e3	0.50	YES	0.000e0	0.00000	0.61381	0.623

Hexa-Dioxins

Name	: RT :	m1 Height; m2 Height;	m1 Resp;	m2 Resp	RA n/y	Resp	Conc.	EMPC:	DL
1 Total Hexa-Dioxins	32.56	9.414e4 7.591e4	5.076e3	3.893e3	1.30 NO	8.970e3	3.8460	3.8460	0.322
2 Total Hexa-Dioxins	33.11	9.231e3 9.798e3	6.063e2	6.317e2	0.96 YES	0.000e0	0.00000	0.46964	0.322
3 Total Hexa-Dioxins	33.37	7.937e4 6.191e4	5.458e3	4.345e3	1.26 NO	9.804e3	4.2037	4.2037	0.322
4 1,2,3,6,7,8-HxCDD	34.16	2.423e4 1.209e4	1.434e3	8.617e2	1.66 YES	2.295e3	0.00000	0.73539	0.302
5 -1,2,3,7,8,9-HxCDD	34.43	1.441e4 6.886e3	7.536e2	4.254e2	1.77 YES	1.179e3	0.00000	0.42400	0.285

Hepta-Dioxins

Name	: RT :	m1 Height; m2 Height;	m1 Resp; m2 Res	p RA n/y	Resp	Conc.	EMPC:	DL
1 Total Hepta-Dioxins	36.96	4.908e5 4.866e5	4.805e4 4.680e4	4 1.03 NO	9.485e4	50.970	50.970	0.873
2 1,2,3,4,6,7,8-HpCDD	38.00	2.754e5 2.716e5	2.792e4 2.725e4	4 1.02 NO	5.517e4	29.651	29.651	0.873

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Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-8.qld

Last Altered:

Monday, February 10, 2020 15:45:35 Pacific Standard Time

Printed: Monday, February 10, 2020 15:46:08 Pacific Standard Time

Name: 200202R1_8, Date: 02-Feb-2020, Time: 15:52:51, ID: 1903654-03 PDI-073SC-B-04-06-191013 12.66, Description: PDI-073SC-B-04-06-191013

Tetra-Furans

Name	: RT :	m1 Height	m2 Height ;	m1 Resp;	m2 Resp	RA	n/y	Resp	Conc.	EMPC;	DL
1 Total Tetra-Furans	20.41	2.713e4	4.527e4	2.331e3	3.171e3	0.74	NO	5.501e3	0.94612	0.94612	0.221
2 , Total Tetra-Furans	21.02	6.825e4	9.261e4	6.715e3	8.806e3	0.76	NO	1.552e4	2.6694	2.6694	0.221
3 Total Tetra-Furans	21.98	2.939e4	4.115e4	2.896e3	3.545e3	0.82	NO	6.441e3	1.1078	1.1078	0.221
4 Total Tetra-Furans	22.46	3.038e4	3.554e4	3.565e3	4.370e3	0.82	NO	7.934e3	1.3646	1.3646	0.221
5 Total Tetra-Furans	22.83	1.137e4	1.456e4	4.861e2	6.630e2	0.73	NO	1.149e3	0.19762	0.19762	0.221
6 Total Tetra-Furans	23.31	1.207e4	1.446e4	8.102e2	1.129e3	0.72	NO	1.939e3	0.33347	0.33347	0.221
7 Total Tetra-Furans	23.48	3.996e4	5.020e4	4.033e3	4.816e3	0.84	NO	8.849e3	1.5219	1.5219	0.221
8 Total Tetra-Furans	24.09	1.982e4	3.267e4	1.109e3	1.474e3	0.75	NO	2.584e3	0.44436	0.44436	0.221
9 Total Tetra-Furans	24.85	9.331e3	9.772e3	7.117e2	6.875e2	1.04	YES	0.000e0	0.00000	0.20928	0.221
10 (2,3,7,8-TCDF	24.97	1.109e4	1.192e4	9.136e2	8.701e2	1.05	YES	1.784e3	0.00000	0.26488	0.221
11 Total Tetra-Furans	25.32	7.118e3	1.214e4	5.842e2	7.842e2	0.74	NO	1.368e3	0.23535	0.23535	0.221

Penta-Furans function 1

	Name	; RT ;	m1 Height; m2 Height;	m1 Resp;	m2 Resp	: RA	n/y :	Resp	Conc	EMPC:	DL
1	1st Func. Penta-Furans	26.98	2.292e5 1.372e5	1.603e4	1.001e4	1.60	NO	2.604e4	6.1425	6.1425	0.141

Penta-Furans

	Name	RT	; m1 Heigh	t; m2 Height;	m1 Resp;	m2 Resp	RA n	n/y	Resp	Conc	EMPC:	DL
1	Total Penta-Furans	28.45	6.398e4	4.415e4	4.904e3	3.190e3	1.54	NO	8.094e3	1.9095	1.9095	0.483
2	Total Penta-Furans	29.05	5 4.463e4	2.832e4	3.221e3	2.035e3	1.58	NO	5.256e3	1.2400	1.2400	0.483
3	Total Penta-Furans	29.71	2.030e4	1.282e4	1.246e3	6.546e2	1.90 Y	'ES	0.000e0	0.00000	0.39376	0.483

Hexa-Furans

Name	; RT ;	m1 Height; m2 Height;	m1 Resp; m2 Res	p RA n/y	Resp	. Conc.	EMPC;	DL
1 Total Hexa-Furans	32.03	1.870e4 1.588e4	1.064e3 8.285e	2 1.28 NO	1.893e3	0.73714	0.73714	0.317
2 Total Hexa-Furans	32.19	6.971e4 5.612e4	2.937e3 2.967e	3 0.99 YES	0.000e0	0.00000	2.0668	0.317
3 Total Hexa-Furans	32.72	9.879e4 7.733e4	5.360e3 4.049e	3 1.32 NO	9.409e3	3.6647	3.6647	0.317

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Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-8.qld

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Monday, February 10, 2020 15:45:35 Pacific Standard Time

Printed:

Monday, February 10, 2020 15:46:08 Pacific Standard Time

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Hepta-Furans

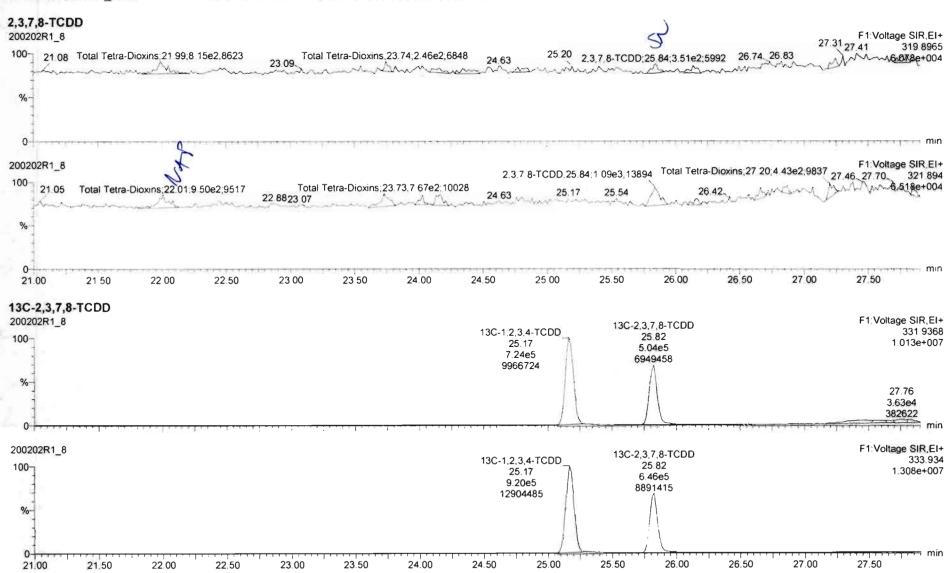
Name	; RT ;	m1 Height; n	n2 Height ;	m1 Resp;	m2 Resp	· RA	n/y	Resp	Conc.	EMPC;	DL
1 1,2,3,4,6,7,8-HpCDF	36.54	5.007e4	5.145 e 4	4.480e3	4.618e3	0.97	NO	9.098e3	5.2394	5.2394	0.370
2 Total Hepta-Furans	37.16	1.032e5	1.046e5	1.019 e 4	1.030e4	0.99	NO	2.048e4	14.015	14.015	0.449

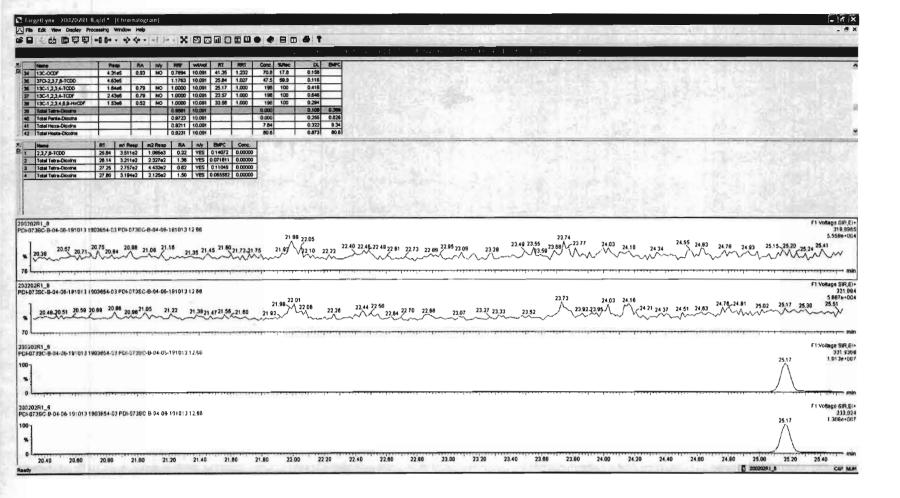
Work Order 1903654 Page 211 of 1184

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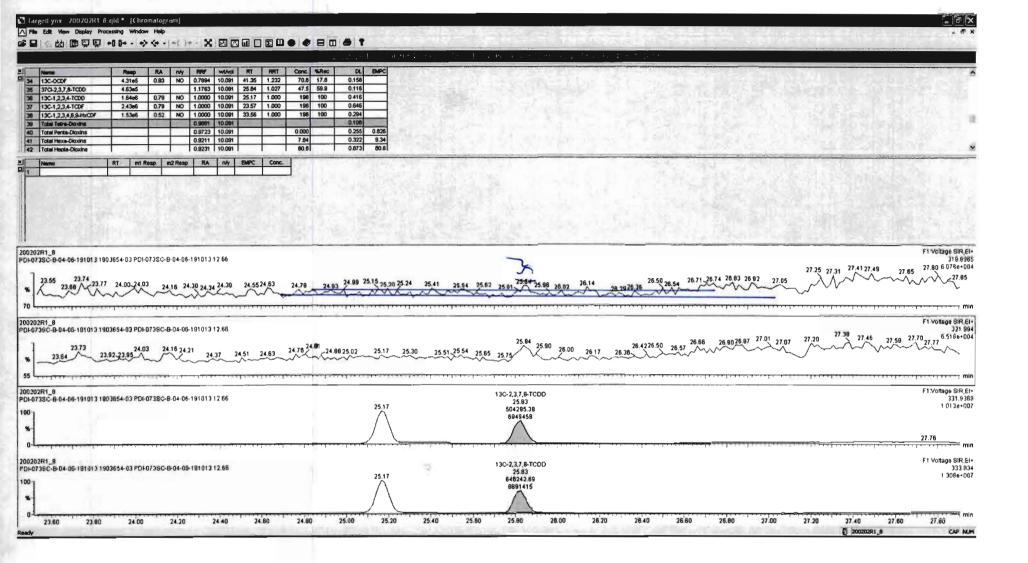
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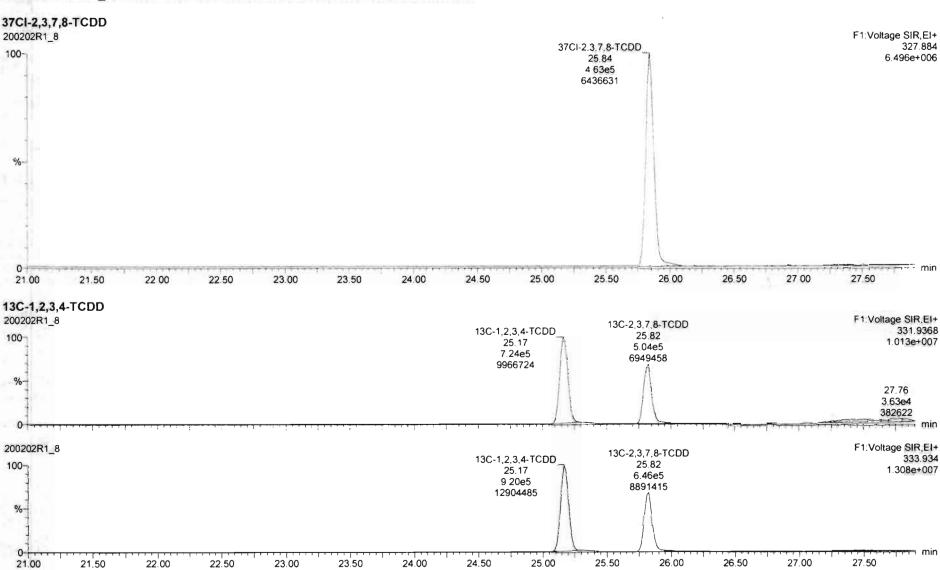
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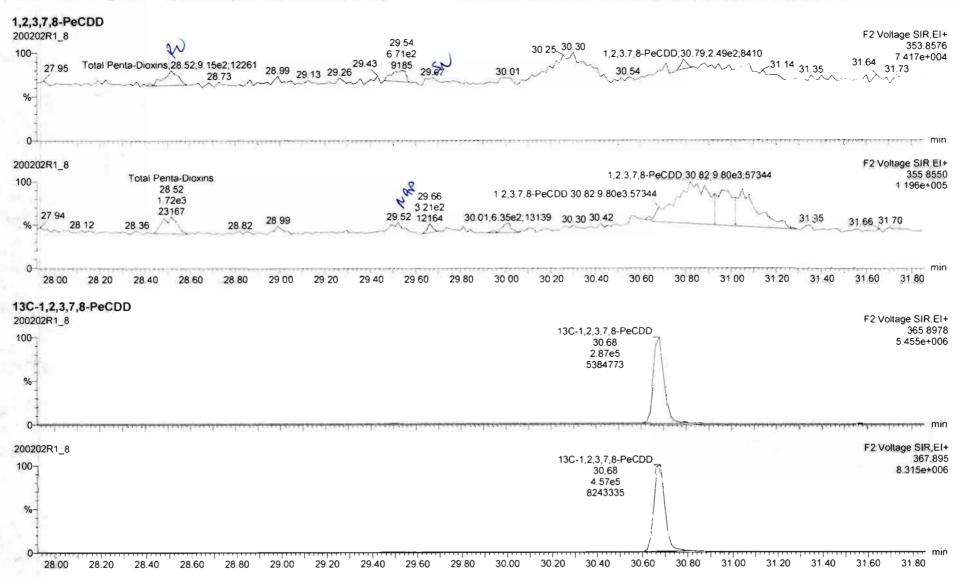
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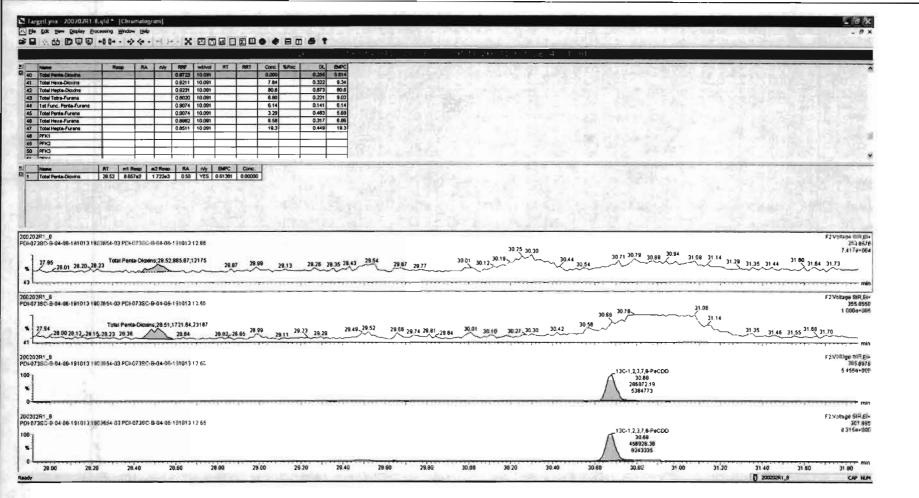


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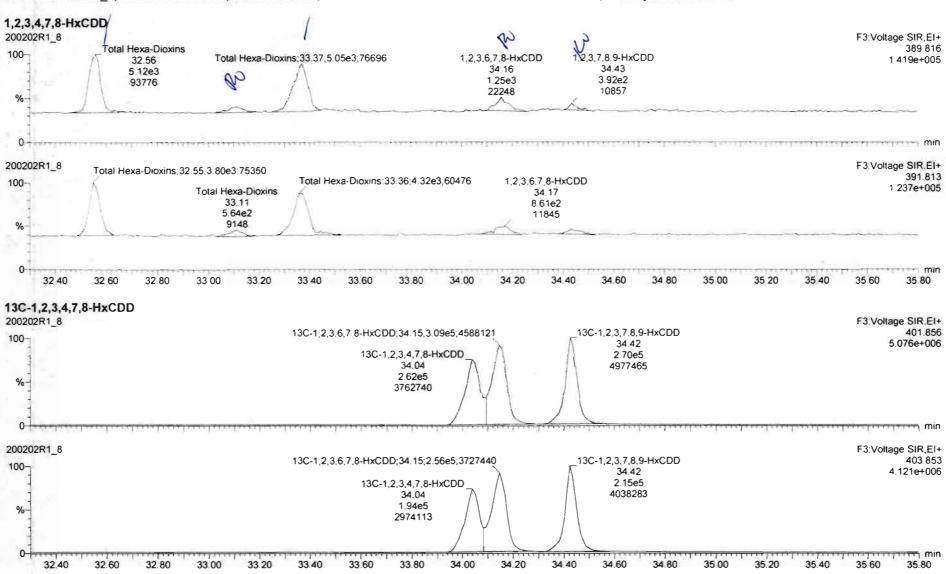


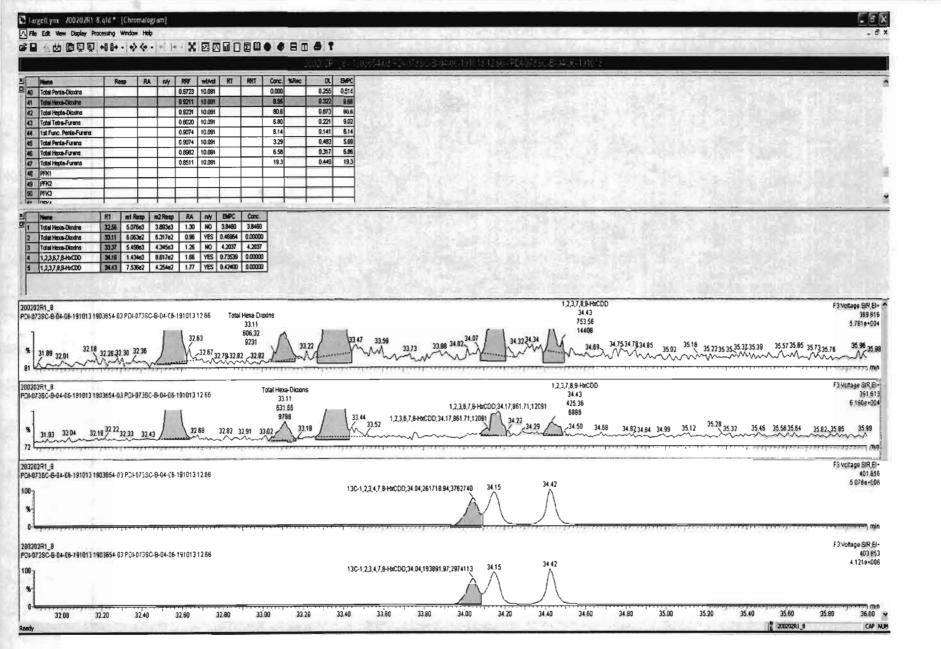
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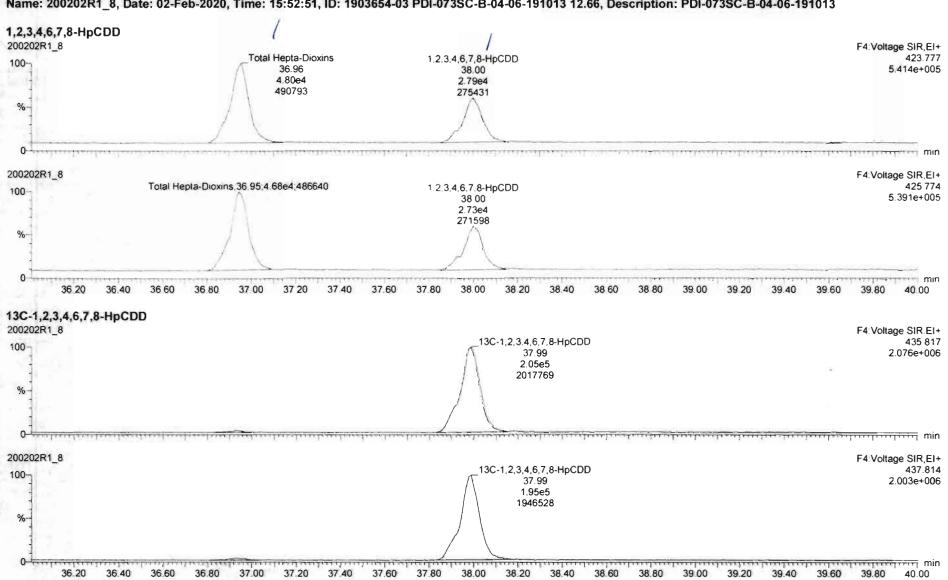


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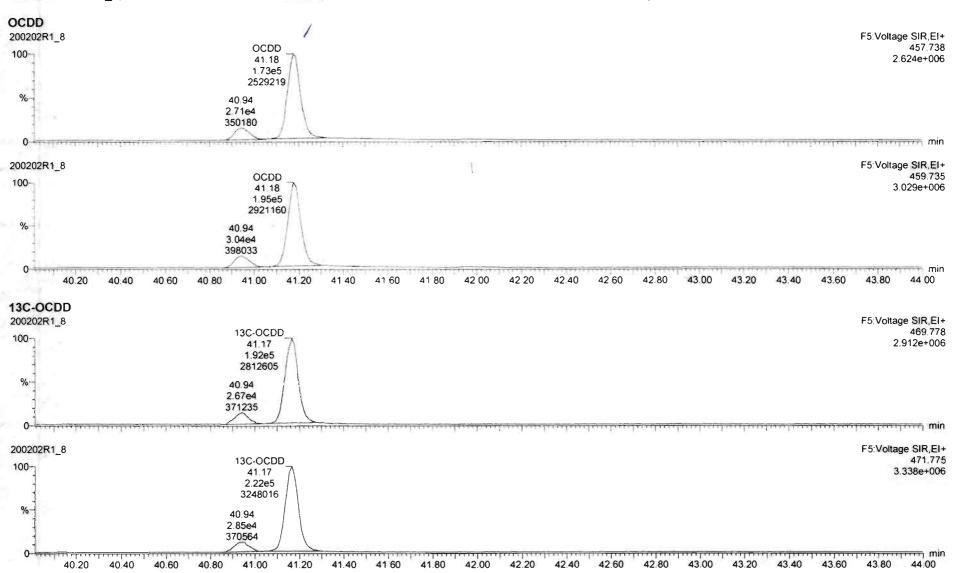


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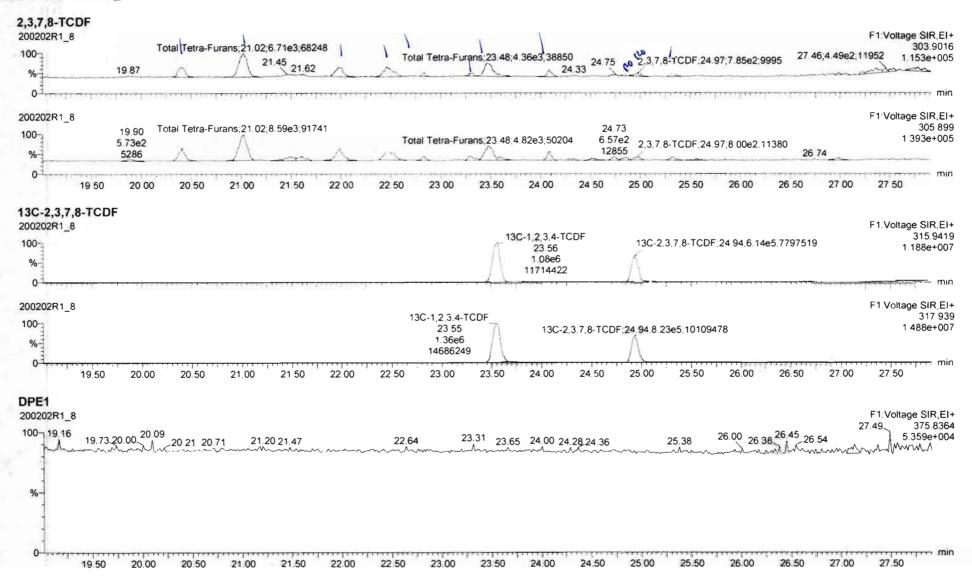
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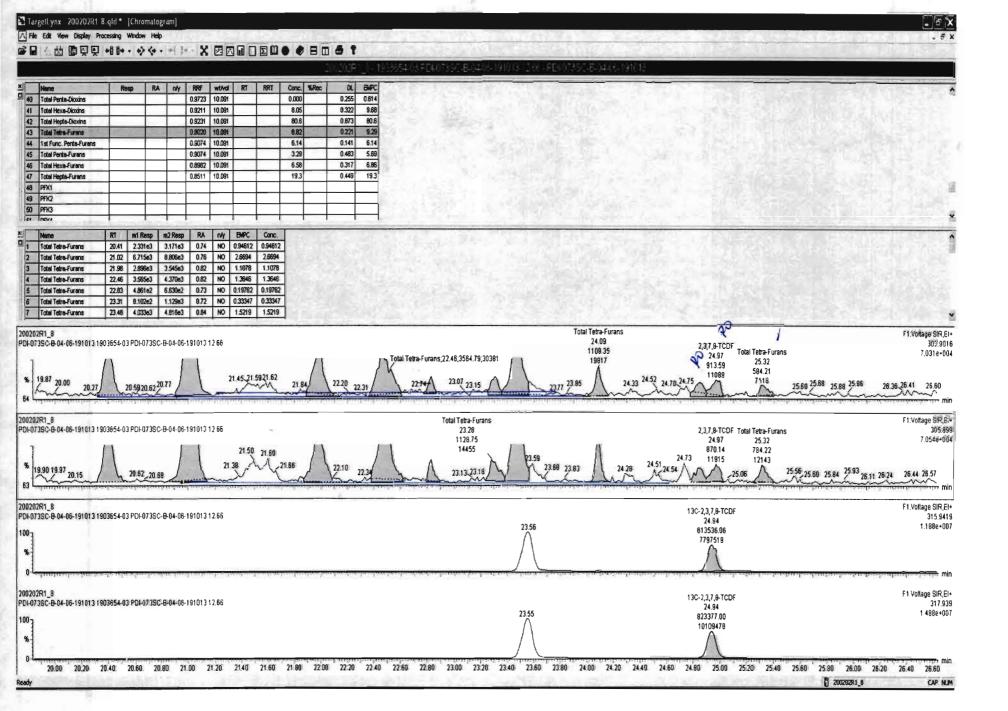


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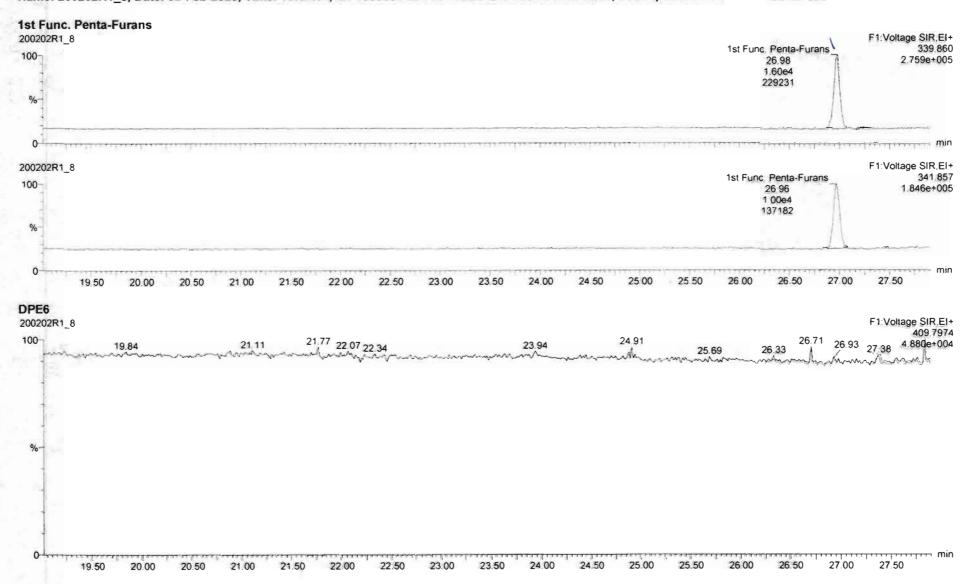
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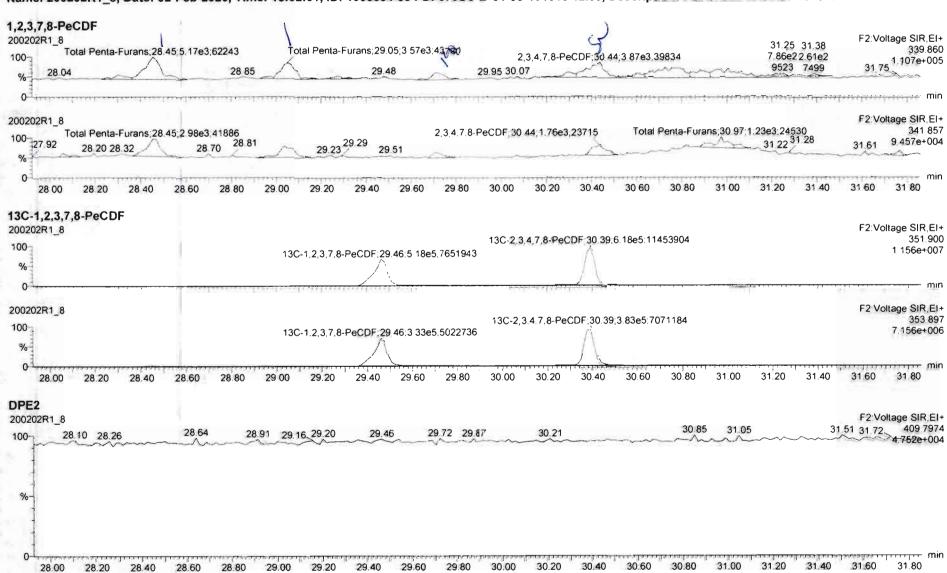
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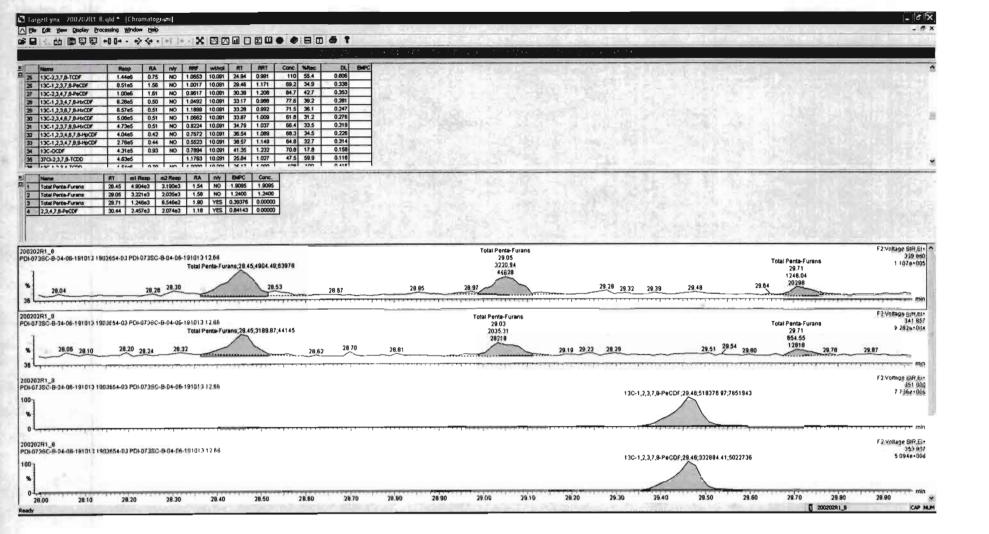
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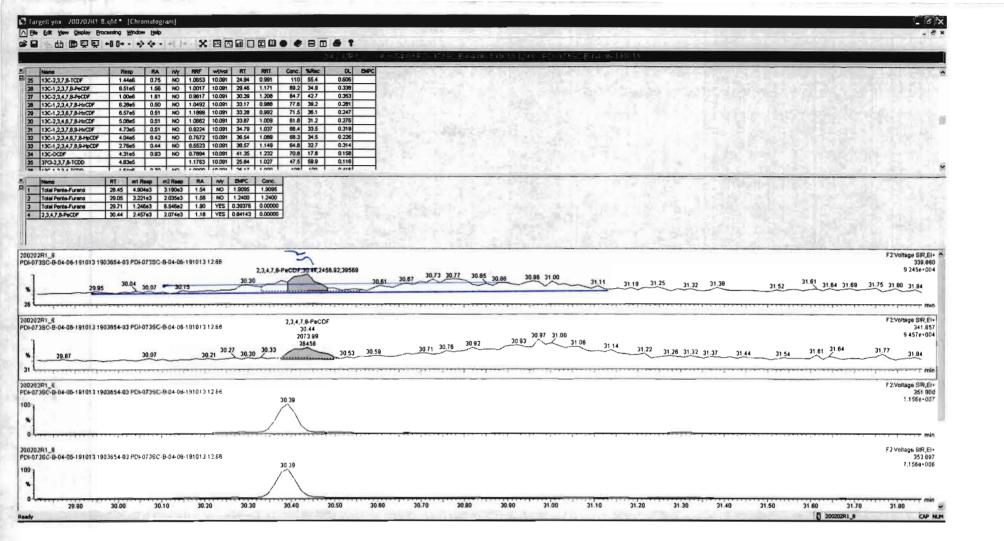
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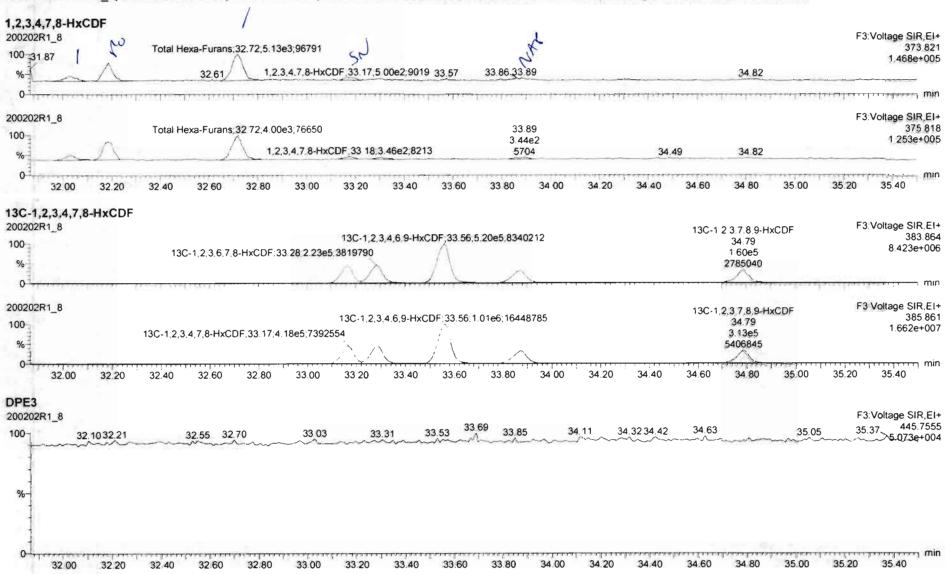


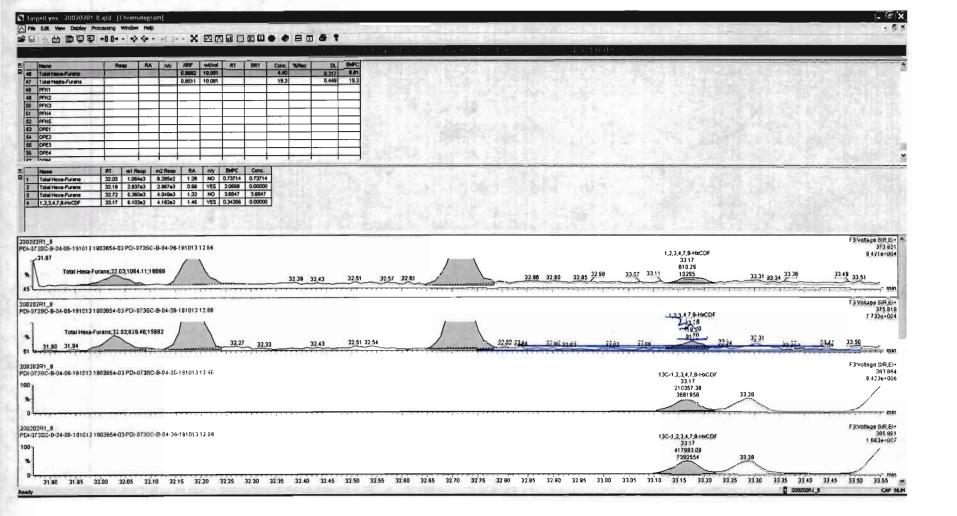
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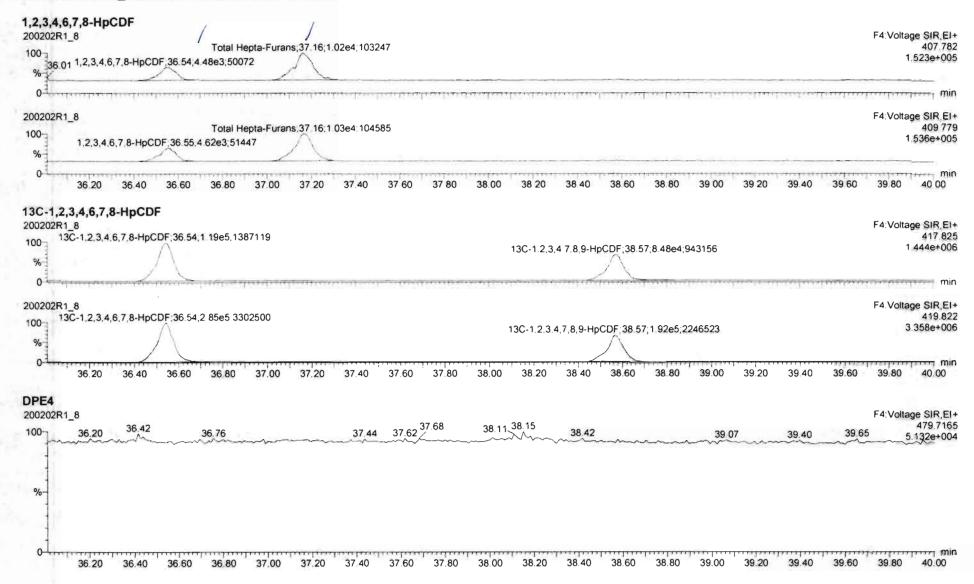


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Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

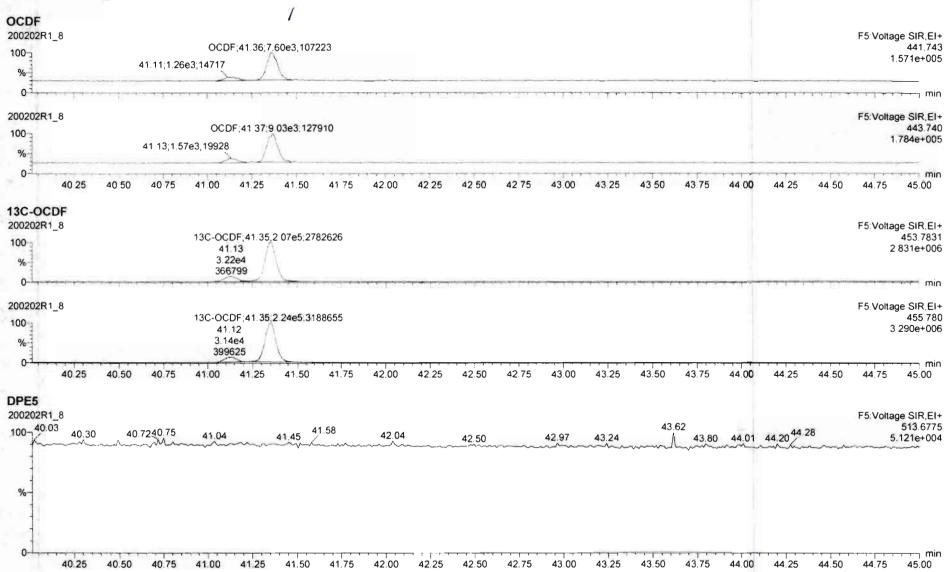


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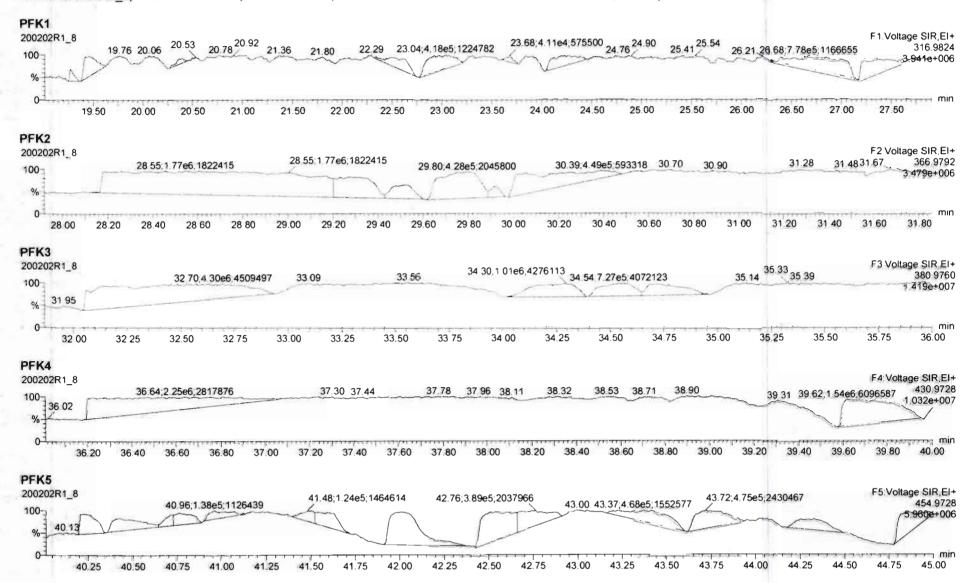


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Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-9.qld

Last Altered:

Tuesday, February 11, 2020 14:28:21 Pacific Standard Time

Printed:

Tuesday, February 11, 2020 14:29:00 Pacific Standard Time

GRB 02/11/2020 C7 03/13/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1 9, Date: 02-Feb-2020, Time: 16:39:50, ID: 1903654-04 PDI-073SC-B-06-08-191013 15.45, Description: PDI-073SC-B-06-08-191013

No.	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2.3,7,8-TCDD	2.70e3	0.58	YES	0.988	10.030	25.856	25.85	1.001	1.001	0.44890		0.189	0.380
2	2 1,2,3,7,8-PeCDD	4.93e3	0.71	NO	0.972	10.030	30.703	30.70	1.001	1.001	1.1588		0.424	1.16
3	3 1,2,3,4,7,8-HxCDD	8.70e2	1.06	NO	1.07	10.030	34.040	34.05	1.000	1.001	0.25561		0.204	0.256
4	4 1.2.3.6,7,8-HxCDD	5.36e3	1.26	NO	0.921	10.030	34.136	34.16	1.000	1.001	1.5784		0.216	1.58
5	5 1,2,3,7,8,9-HxCDD	2.45e3	1.30	NO	0.918	10.030	34.447	34.44	1.001	1.001	0.81066		0.239	0.811
6	6 1,2,3,4,6,7,8-HpCDD	3.25e4	1.02	NO	0.923	10.030	37.992	38.00	1.000	1 001	13.376		0.507	13.4
7	7 OCDD	4.48e5	0.89	NO	0.975	10.030	41.123	41.13	1.000	1.000	295.30		0.604	295
8	8 2,3,7,8-TCDF	4.41e3	0.84	NO	0.802	10.030	24.967	24.97	1.001	1.001	0.71943	UK	0.179	0.719
9	9 1,2,3,7,8-PeCDF	2.06e3	1.54	NO	0.907	10.030	29.467	29.45	1.001	1.000	0.41197		0.479	0.412
10	10 2,3,4,7,8-PeCDF	1.42e4	1.42	NО	0.952	10.030	30.422	30.42	1.001	1.001	2.5217		0.353	2.52
11	11 1,2,3,4,7,8-HxCDF	6.19e3	1.17	NO	0.862	10.030	33.167	33.19	1.000	1.001	1.7618		0.343	1.76
12	12 1,2,3,6,7,8-HxCDF	4.68e3	1.08	NO	0.841	10.030	33.294	33.29	1.000	1.000	1.3403		0.356	1.34
13	13 2,3,4,6,7,8-HxCDF	8.21e3	1.21	NO	0.898	10.030	33.904	33.89	1.001	1.001	2.9392		0.453	2.94
14	14 1,2,3,7,8,9-HxCDF	8.47e2	1.30	NO	0.858	10.030	34.775	34.79	1 000	1.000	0.33352		0.528	0.334
15	15 1,2,3,4,6,7.8-HpCDF	1.01e4	1.02	NO	0.851	10.030	36.580	36.55	1.001	1.000	4.5400		0.230	4.54
16	16 1,2,3,4,7.8,9-HpCDF	9.53 e 2	0.97	NO	0.980	10.030	38.567	38.57	1.000	1.000	0.54173		0.286	0.542
17	17 OCDF	6.19e3	1.01	NO	0.806	10.030	41.304	41.33	1 000	1.001	4.5230		0.426	4.52
18	18 13C-2,3,7,8-TCDD	1.21e6	0.78	NO	1.20	10.030	25.814	25.83	1.026	1.026	106.57	53.4	0.298	
19	19 13C-1,2,3,7.8-PeCDD	8.72e5	0.64	NO	0.967	10.030	30.578	30.68	1.215	1.219	94.836	47.6	0.295	
20	20 13C-1,2,3,4,7,8-HxCDD	6.34e5	1.27	NO	0.874	10.030	34.031	34.03	1 014	1.014	81.444	40.8	0.163	
21	21 13C-1,2,3.6,7,8-HxCDD	7.35e5	1.28	NO	1.05	10.030	34.132	34.14	1.017	1.017	78.915	39.6	0.136	
22	22 13C-1,2,3,7,8,9-HxCDD	6.56e5	1.24	NO	0.974	10.030	34.434	34.41	1.026	1.025	75.561	37.9	0.146	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.25e5	1.03	NO	0.747	10.030	37.991	37.98	1.132	1.132	78.923	39.6	0.178	
24	24 13C-OCDD	6.21e5	0.89	NO	0.707	10.030	40.877	41.12	1.218	1.225	98.645	24.7	0.131	
25	25 13C-2,3,7,8-TCDF	1.52e6	0.77	NO	1.07	10.030	24.991	24.94	0.993	0.991	100.46	50.4	0.419	
26	26 13C-1,2,3,7,8-PeCDF	1.10e6	1.56	NO	1.00	10.030	29.345	29.45	1.166	1.170	77.176	38.7	0.321	
27	27 13C-2,3,4,7,8-PeCDF	1.18e6	1.58	NO	0.962	10.030	30.301	30.39	1.204	1.208	85.987	43.1	0.334	
28	28 13C-1,2,3,4,7,8-HxCDF	8.12e5	0.52	NO	1.05	10.030	33.158	33.17	0.988	0.988	86.867	43.6	0.217	
29	29 13C-1,2,3,6,7,8-HxCDF	8.27e5	0.51	NO	1.19	10.030	33.259	33.28	0.991	0.992	78.040	39.1	0.191	
30	30 13C-2,3,4,6,7,8-HxCDF	6.20e5	0.52	NO	1.07	10.030	33.866	33.87	1.009	1.009	65.282	32.7	0.213	
31	31 13C-1,2,3,7,8,9-HxCDF	5.9 0 e5	0.51	NO	0.922	10.030	34.769	34.78	1.036	1.036	71.853	36.0	0.247	

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U:\VG12.PRO\Results\200202R1\200202R1-9.qld

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	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.20e5	0.43	NO	0.767	10.030	36.514	36.54	1.088	1.089	76.014	38.1	0.212	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.58 e 5	0.41	NO	0.552	10.030	38.528	38.57	1.148	1.149	72.757	36.5	0.294	
34	34 13C-OCDF	6.77e5	88.0	NO	0.789	10.030	41.112	41.30	1.225	1.231	96.323	24.2	0.116	
35	35 37CI-2,3,7,8-TCDD	4.96e5			1.18	10.030	25.847	25.85	1.027	1.027	44.353	55.6	0.0659	
36	36 13C-1,2,3,4-TCDD	1.90e6	0.80	NO	1.00	10.030	25.080	25.17	1.000	1.000	199.40	100	0.358	
37	37 13C-1,2,3,4-TCDF	2.84e6	0.78	NO	1.00	10.030	23.420	23.57	1.000	1.000	199.40	100	0.446	
38	38 13C-1,2,3,4,6.9-HxCDF	1.78e6	0.51	NO	1.00	10.030	33.520	33.56	1.000	1.000	199 40	100	0.227	
39	39 Total Tetra-Dioxins				0.988	10.030	24.620		0.000		3.9857		0.189	4.70
40	40 Total Penta-Dioxins				0.972	10.030	29.960		0.000		10.136		0.424	11.9
41	41 Total Hexa-Dioxins				0.921	10.030	33.635		0.000		15.884		0.230	15.9
42	42 Total Hepta-Dioxins				0.923	10.030	37.640		0.000		33.613		0.507	33.6
43	43 Total Tetra-Furans				0.802	10.030	23.610		0.000		35.541		0.179	35.7
44	44 1st Func. Penta-Furans				0.907	10.030	27.090		0.000		40.549		0.0932	40.5
45	45 Total Penta-Furans				0.907	10.030	29.275		0.000		18.521		0.423	34.1
46	46 Total Hexa-Furans				0.898	10.030	33.555		0.000		36.308		0.394	36.3
47	47 Total Hepta-Furans				0.851	10.030	37.835		0.000		11.095		0.271	11.1

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U:\VG12.PRO\Results\200202R1\200202R1-9.qld

Last Altered: Printed:

Tuesday, February 11, 2020 14:28:21 Pacific Standard Time Tuesday, February 11, 2020 14:29:00 Pacific Standard Time

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Name: 200202R1_9, Date: 02-Feb-2020, Time: 16:39:50, ID: 1903654-04 PDI-073SC-B-06-08-191013 15.45, Description: PDI-073SC-B-06-08-191013

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.02	2.167e4	2.470e4	1.979e3	2.435e3	0.81	NO	4.414e3	0.73333	0.73333	0.189
2	Total Tetra-Dioxins	22.53	9.176e3	1.632e4	1.360e3	1.129e3	1.20	YES	0.000e0	0.00000	0.33189	0.189
3	Total Tetra-Dioxins	22.89	9.431e3	1.087e4	5.363e2	6.338e2	0.85	NO	1.170e3	0.19439	0.19439	0.189
4	Total Tetra-Dioxins	23.76	8.565e3	1.047e4	6.530e2	8.353e2	0.78	NO	1.488e3	0.24728	0 24728	0.189
5	Total Tetra-Dioxins	24.04	3.029e4	3.543e4	1.840e3	2.237e3	0.82	NO	4.077e3	0.67732	0.67732	0.189
6	Total Tetra-Dioxins	24.16	2.869e4	3.582e4	1.867e3	2.268e3	0.82	NO	4.135e3	0.68693	0.68693	0.189
7	Total Tetra-Dioxins	24.34	1.005e4	7 238e3	4.717e2	5.470e2	0.86	NO	1.019e3	0.16925	0.16925	0.189
8	Total Tetra-Dioxins	24.76	1.230e4	1.654e4	8.608e2	1.243e3	0.69	NO	2.103e3	0.34947	0.34947	0.189
9	Total Tetra-Dioxins	25.57	1.408e4	1 908e4	1 422e3	1.732e3	0.82	NO	3.154e3	0.52394	0.52394	0.189
10	2,3,7,8-TCDD	25.85	1.212e4	2.094e4	9.942e2	1.708e3	0.58	YES	2.702e3	0.00000	0.37969	0.189
11	Total Tetra-Dioxins	26.15	1.428e4	1.889e4	9.752e2	1.456e3	0.67	NO	2.431e3	0.40383	0.40383	0.189

Penta-Dioxins

lacil.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.52	8.017e4	1.310e5	5.604e3	9.058e3	0.62	NO	1.466e4	3.4489	3 4489	0.424
2	Total Penta-Dioxins	28.99	1.471e4	2.221e4	9.965e2	1.332e3	0.75	YES	0.000e0	0.00000	0 51090	0.424
3	Total Penta-Dioxins	29.49	5.347e4	7.357e4	3.407e3	4.740e3	0.72	NO	8 147e3	1.9164	1.9164	0.424
4	Total Penta-Dioxins	29.65	5.079e4	7.409e4	2.716e3	4.018e3	0.68	NO	6.734e3	1.5842	1.5842	0.424
5	Total Penta-Dioxins	29.75	1.983e4	4.207e4	1.392e3	2.529e3	0.55	NO	3.922e3	0.92255	0.92255	0.424
6	Total Penta-Dioxins	29.98	3.336e4	5.093e4	3.068e3	3.244e3	0.95	YES	0.000e0	0.00000	1.2438	0.424
7	1,2,3,7.8-PeCDD	30.70	3.568e4	5.341e4	2.044e3	2.883e3	0.71	NO	4.926e3	1.1588	1.1588	0.424
8	Total Penta-Dioxins	30.77	1.301e4	2.214e4	7.210e2	1.134 e 3	0.64	NO	1.855e3	0.43638	0.43638	0.424
9	Total Penta-Dioxins	31.06	1.492e4	2.364e4	1.167e3	1.677e3	0.70	NO	2.844e3	0.66910	0.66910	0.424

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-9.qld

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Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.56	1.791e5	1.394e5	8.354e3	6.508e3	1.28	NO	1.486e4	4.7657	4.7657	0.230
2	Total Hexa-Dioxins	33.10	3.743e4	3.048e4	1.960e3	1.474e3	1.33	NO	3.434e3	1.1012	1.1012	0.230
3	Total Hexa-Dioxins	33.37	2.108e5	1.653e5	1.271e4	1.028e4	1.24	NO	2.299e4	7.3720	7.3720	0.230
4	1.2,3,4,7,8-HxCDD	34.05	8.310e3	1.027e4	4.476e2	4.227e2	1.06	NO	8.704e2	0.25561	0.25561	0.204
5	1,2,3,6,7.8-HxCDD	34.16	5.304e4	4.376e4	2.990e3	2.371e3	1.26	NO	5.361e3	1.5784	1.5784	0.216
6	1.2,3,7.8,9-HxCDD	34.44	2.566e4	1.950e4	1.383e3	1.066e3	1.30	NO	2.449e3	0.81066	0.81066	0.239

Hepta-Dioxins

1	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.96	2.643e5	2.737e5	2.452e4	2.470e4	0.99	NO	4.922e4	20.237	20.237	0.507
2	1,2,3,4,6,7,8-HpCDD	38.00	1.801e5	1.841e5	1.644e4	1.610e4	1.02	NO	3.253e4	13.376	13.376	0.507

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Tetra-Furans

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.87	7.375e3	1.350e4	6.207e2	8.974e2	0.69	NO	1.518e3	0.24784	0.24784	0.179
2	Total Tetra-Furans	20 39	7.217e4	9.386e4	6.123e3	7.810e3	0.78	NO	1.393e4	2.2747	2.2747	0.179
3	Total Tetra-Furans	21.02	2.950e5	4 254e5	2.715e4	3.643e4	0.75	NO	6.358e4	10.380	10.380	0.179
4	Total Tetra-Furans	21.49	2.451e4	3.648e4	4.879e3	6.577e3	0.74	NO	1.146e4	1.8704	1.8704	0.179
5	Total Tetra-Furans	21.89	1.433e4	1.548e4	6.288e2	8.291e2	0.76	NO	1.458e3	0.23804	0.23804	0.179
6	Total Tetra-Furans	21.99	6.772e4	9.296e4	7.048e3	9.673e3	0.73	NO	1.672e4	2.7299	2.7299	0.179
7	Total Tetra-Furans	22.53	7.044e4	9.095e4	1.096e4	1.496e4	0.73	NO	2.592e4	4.2324	4.2324	0.179
8	Total Tetra-Furans	22.83	2.702e4	3.934e4	1.243e3	1.490e3	0.83	NO	2.733e3	0.44621	0.44621	0.179
9	Total Tetra-Furans	23.31	3.462e4	3.889e4	2.414e3	3.217e3	0.75	NO	5.631e3	0.91928	0.91928	0.179
10	Total Tetra-Furans	23.50	1.363e5	1.916e5	1.329 e4	1.880e4	0.71	NO	3.210e4	5.2400	5.2400	0.179
11	Total Tetra-Furans	23.58	2.382e4	2.927e4	1.183e3	1.479e3	0.80	NO	2.662e3	0.43463	0.43463	0.179
12	Total Tetra-Furans	24.10	6.878e4	9.446e4	3.317e3	4.287e3	0.77	NO	7.604e3	1.2414	1.2414	0.179
13	Total Tetra-Furans	24.33	1.144e4	1.290e4	8.044e2	1.036e3	0.78	NO	1.840e3	0.30039	0.30039	0.179
14	Total Tetra-Furans	24.52	1.129e4	2.036e4	1.048e3	1.290e3	0.81	NO	2.339e3	0.38185	0.38185	0.179
15	Total Tetra-Furans	24.73	1.586e4	1.836e4	1.005e3	1.404e3	0.72	NO	2.409e3	0.39332	0.39332	0.179
16	Total Tetra-Furans	24.85	2.168e4	3.446e4	1.663e3	2.483e3	0.67	NO	4.146e3	0.67687	0.67687	0.179
17	2.3,7,8-TCDF	24.97	2.807e4	2.909e4	2 005e3	2.401e3	0.84	NO	4.407e3	0.71943	0.71943	0.179
18	Total Tetra-Furans	25.33	2.674e4	3.037e4	1 682e3	2.149e3	0.78	NO	3.831e3	0.62541	0.62541	0.179
19	Total Tetra-Furans	25.56	6.281e3	7.460e3	4.797e2	5.788e2	0.83	NO	1.059e3	0.17281	0.17281	0 179
20	Total Tetra-Furans	25.89	9.300e3	1.303e4	5.487e2	9.187e2	0.60	YES	0.000e0	0.00000	0.20593	0 179
21	Total Tetra-Furans	26.44	3.968e4	5.080e4	2 669e3	3.515e3	0.76	NO	6.184e3	1.0096	1.0096	0.179
22	Total Tetra-Furans	26.59	3.800e4	4.725e4	2.866e3	3.296e3	0.87	NO	6.162e3	1.0060	1.0060	0.179

Penta-Furans function 1

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.01	1.753e6	1.091e6	1.295e5	8.054e4	1.61	NO	2.101e5	40.549	40.549	0.0932

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Tuesday, February 11, 2020 14:28:21 Pacific Standard Time Tuesday, February 11, 2020 14:29:00 Pacific Standard Time

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Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.32	7.903e4	4.983e4	4.775e3	3.317e3	1.44	NO	8.092e3	1.5621	1.5621	0.423
2	Total Penta-Furans	28.47	6.277e5	4.219e5	4.383e4	2.962e4	1.48	NO	0.000e0	0.00000	14.178	0.423
3	Total Penta-Furans	28.52	8.192e4	5.361e4	2.760e3	2.060e3	1.34	NO	0.000e0	0.00000	0.93038	0.423
4	Total Penta-Furans	29.03	3.255e5	2.028e5	2.016e4	1.285e4	1.57	NO	3.301e4	6.3716	6.3716	0.423
5	Total Penta-Furans	29.25	2.292e4	1.224e4	1.094e3	8.009e2	1.37	NO	1.895e3	0.36584	0.36584	0.423
6	1,2,3,7,8-PeCDF	29.45	2.049e4	1.414e4	1.251e3	8.108e2	1.54	NO	2.062e3	0.41197	0.41197	0.479
7	Total Penta-Furans	29.71	1.489e5	1.002e5	9.061e3	5.848e3	1.55	NO	1.491e4	2.8780	2 8780	0.423
8	Total Penta-Furans	30.28	2.815e4	2.269e4	1.534e3	1.382e3	1,11	YES	0.000e0	0.00000	0.48717	0.423
9	2,3.4.7,8-PeCDF	30.42	2.928e5	2.038e5	8.310e3	5.851e3	1.42	NO	1.416e4	2.5217	2.5217	0.353
10	Total Penta-Furans	30.44	3.301e5	2.303e5	1.256e4	9.013e3	1.39	NO	2.158e4	4.1654	4.1654	0.423
11	Total Penta-Furans	31.32	1.710e4	1.307e4	7.802e2	4.858e2	1.61	NO	1.266e3	0.24439	0.24439	0.423

Hexa-Furans

June 1	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.03	9.926e4	7.047e4	4.970e3	4.265e3	1.17	NO	9.235e3	2.8775	2.8775	0.394
2	Total Hexa-Furans	32.18	5.173e5	4.142e5	2.504e4	2.010e4	1.25	NO	4.513e4	14.064	14.064	0.394
3	Total Hexa-Furans	32.72	4.359e5	3.695e5	2.169e4	1.840e4	1.18	NO	4.009e4	12.493	12.493	0.394
4	1.2,3,4,7.8-HxCDF	33.19	6.256e4	4.870e4	3.330e3	2.856e3	1.17	NO	6.186e3	1.7618	1.7618	0 343
5	1,2,3,6.7,8-HxCDF	33.29	4.337e4	4.040e4	2.424e3	2.254e3	1.08	NO	4.679e3	1.3403	1.3403	0.356
6	2,3,4,6,7,8-HxCDF	33.89	7.232e4	6.762e4	4.487e3	3.723e3	1,21	NO	8.210e3	2.9392	2.9392	0.453
7	1,2,3,7,8,9-HxCDF	34.79	1.051e4	1.021e4	4.796e2	3.675e2	1.30	NO	8.471e2	0.33352	0.33352	0.528
8	Total Hexa-Furans	34.83	1.965e4	1.289e4	8.680e2	7.343e2	1.18	NO	1.602e3	0.49931	0.49931	0.394

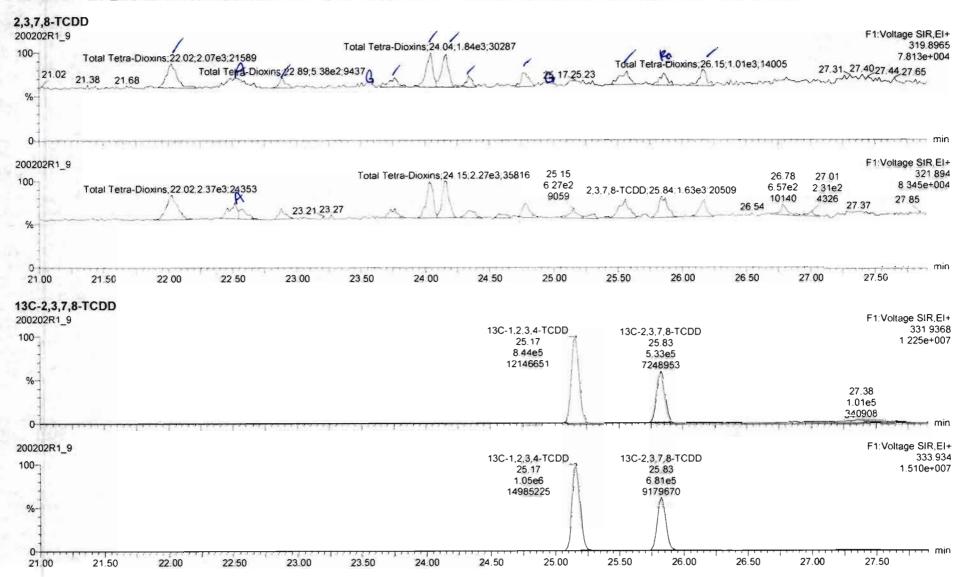
Hepta-Furans

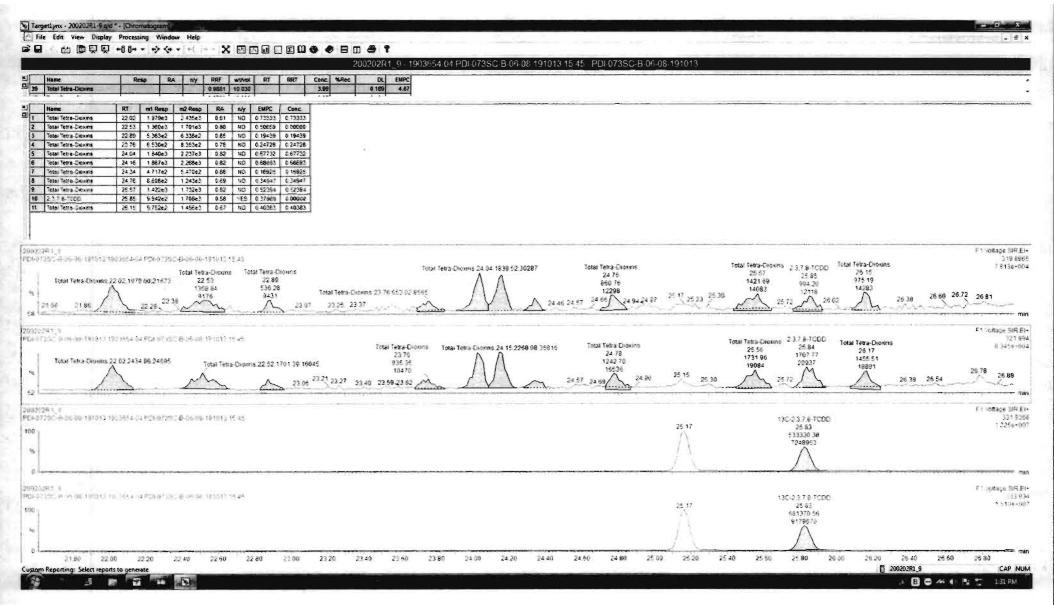
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1	1,2,3,4,6,7,8-HpCDF	36.55	6.795e4	6.200e4	5.073e3	4.994e3	1.02	NO	1.007e4	4.5400	4.5400	0.230
2	Total Hepta-Furans	37.16	6.485e4	6.596e4	5.41 4e 3	5.847e3	0.93	NO	1.126e4	6.0131	6.0131	0.271
3	1,2,3,4,7,8,9-HpCDF	38.57	5.891e3	8.085e3	4.701e2	4.829e2	0.97	NO	9.531e2	0.54173	0.54173	0.286

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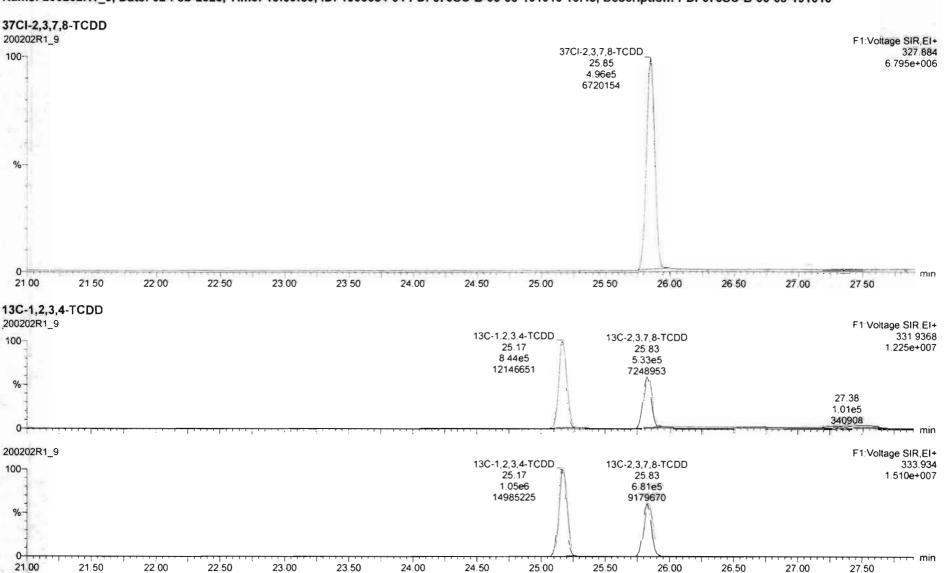
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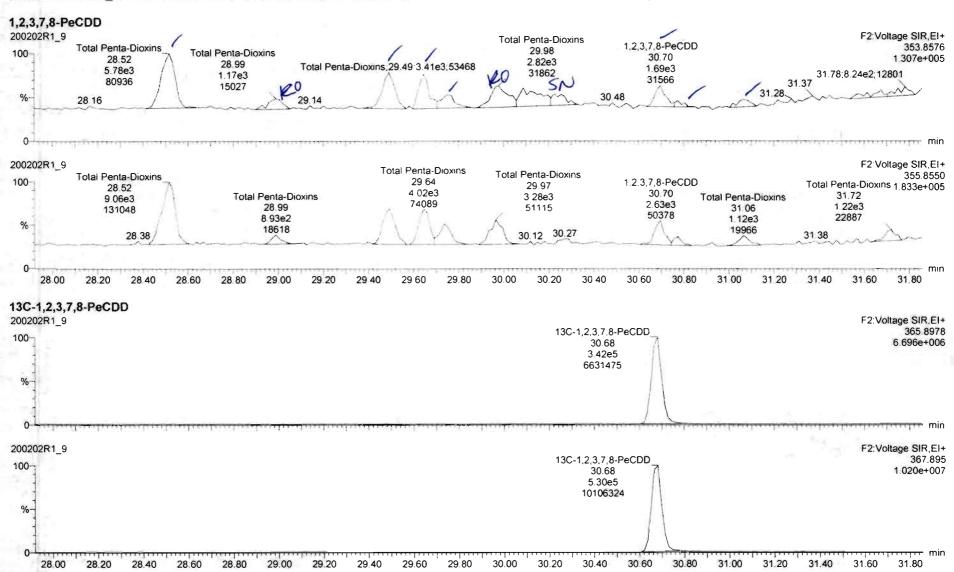
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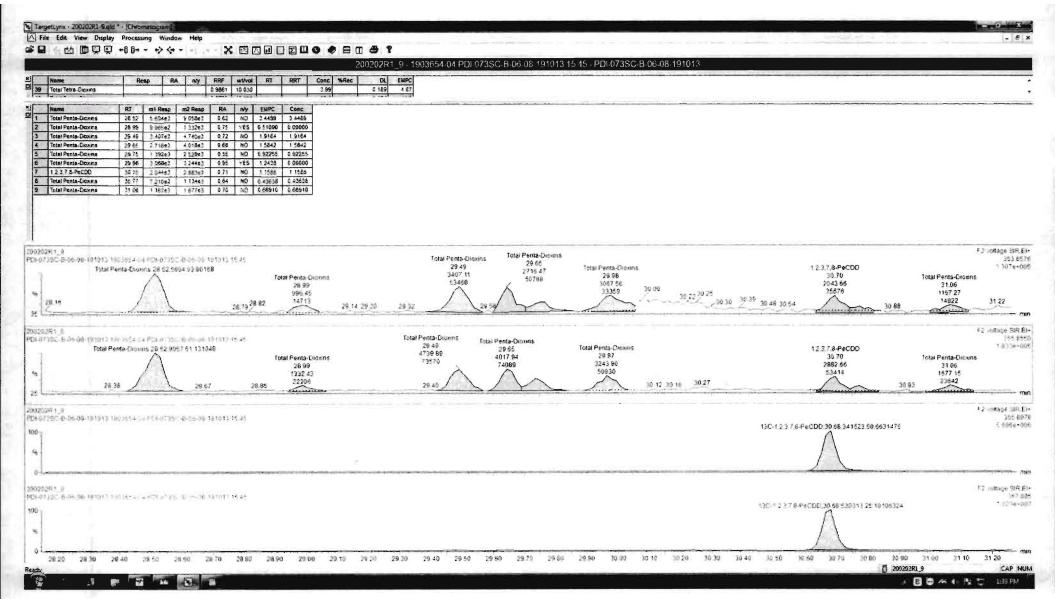
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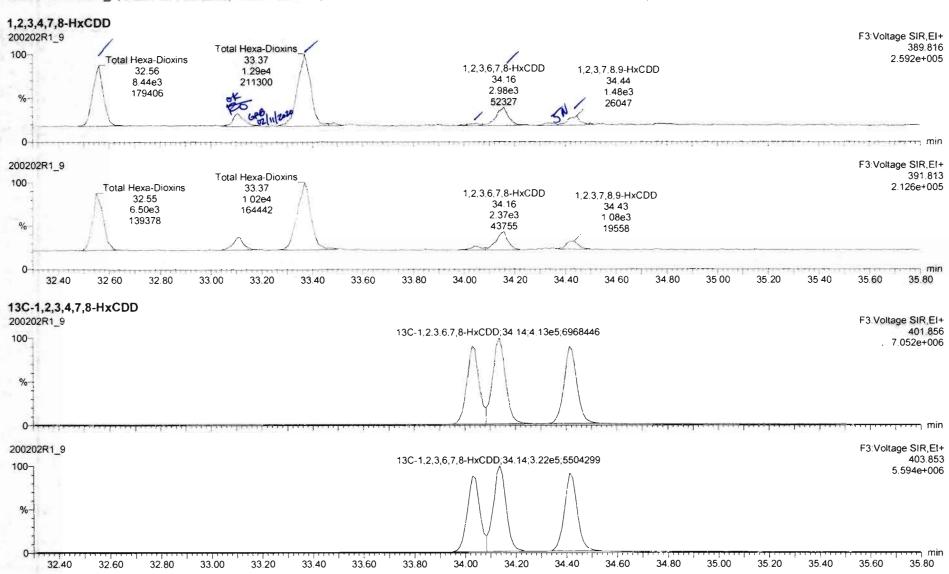


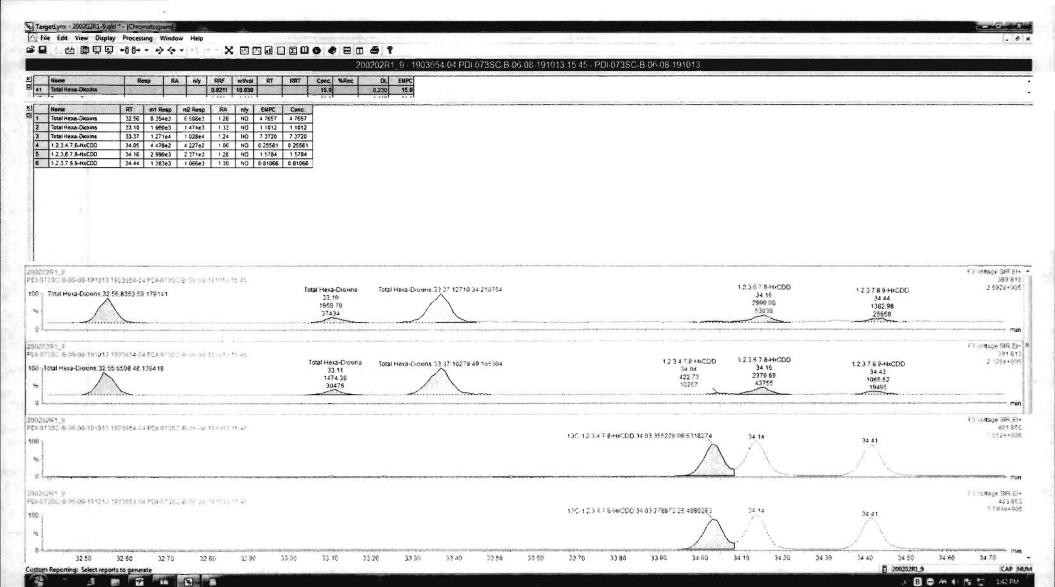


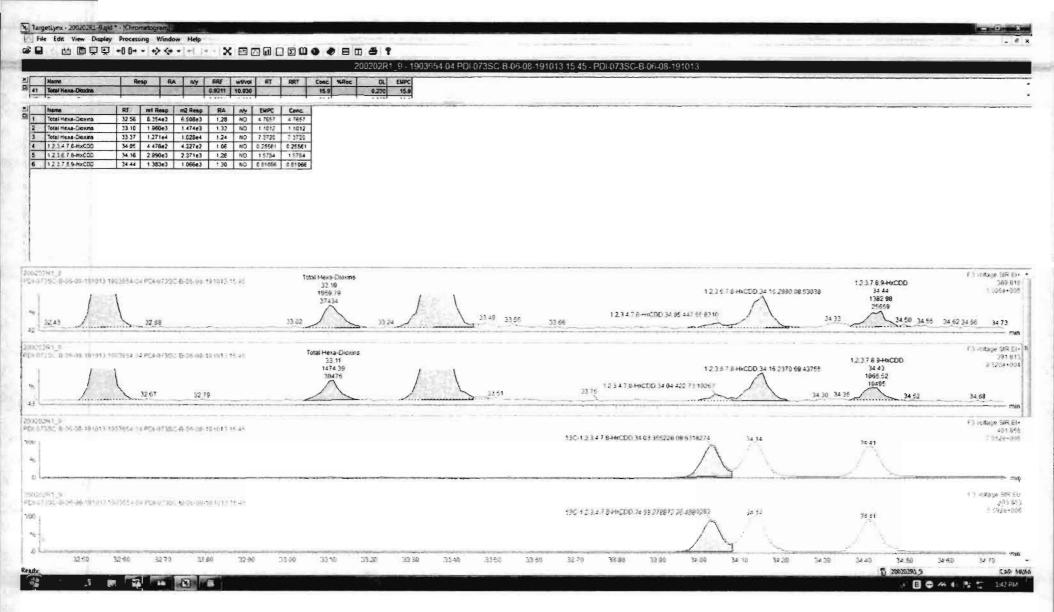
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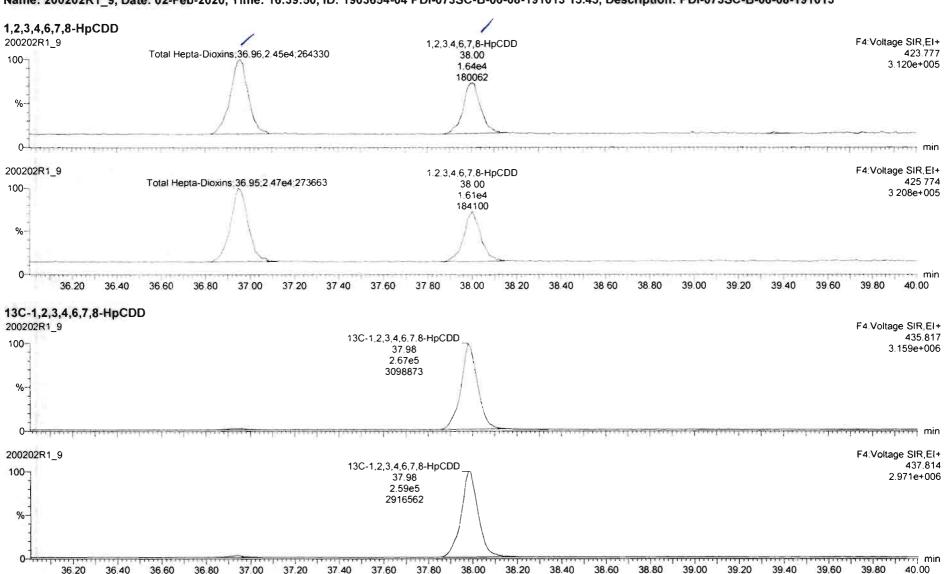






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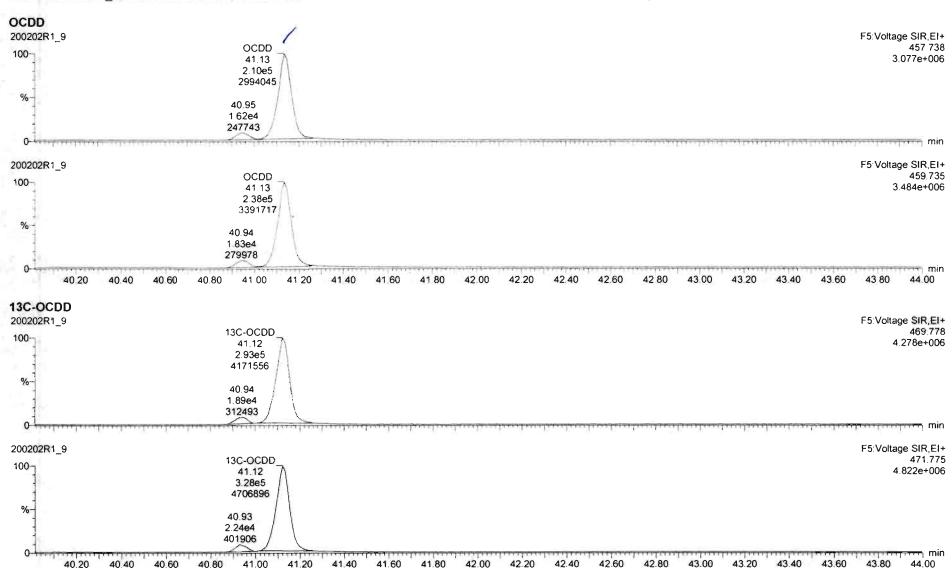
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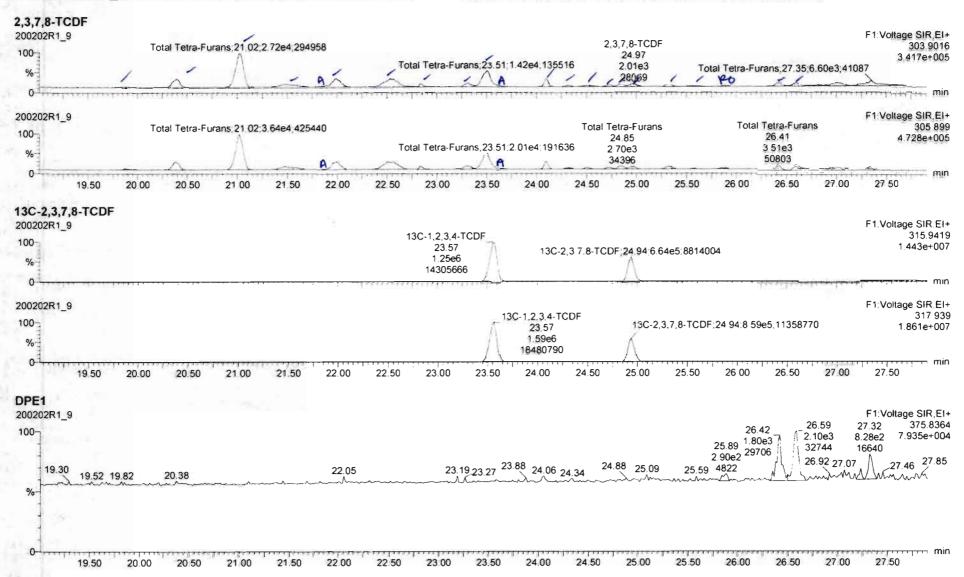
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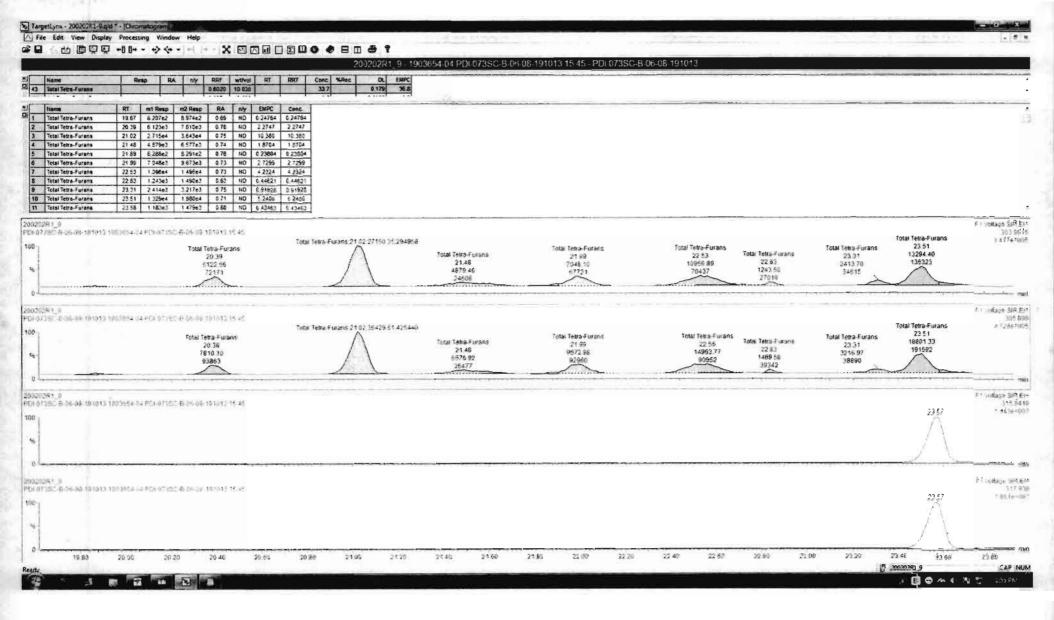
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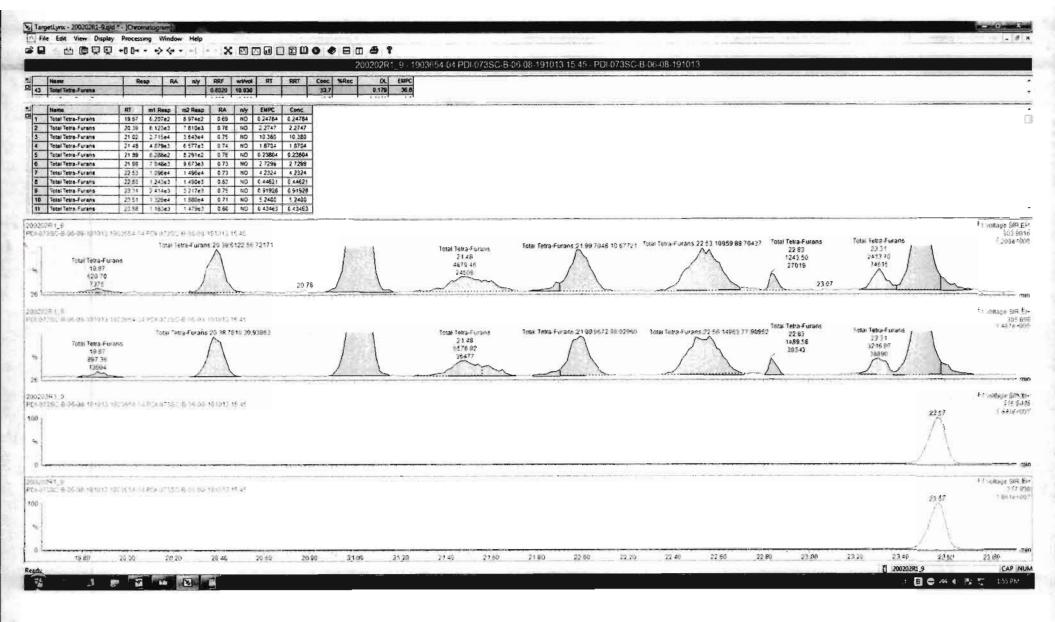
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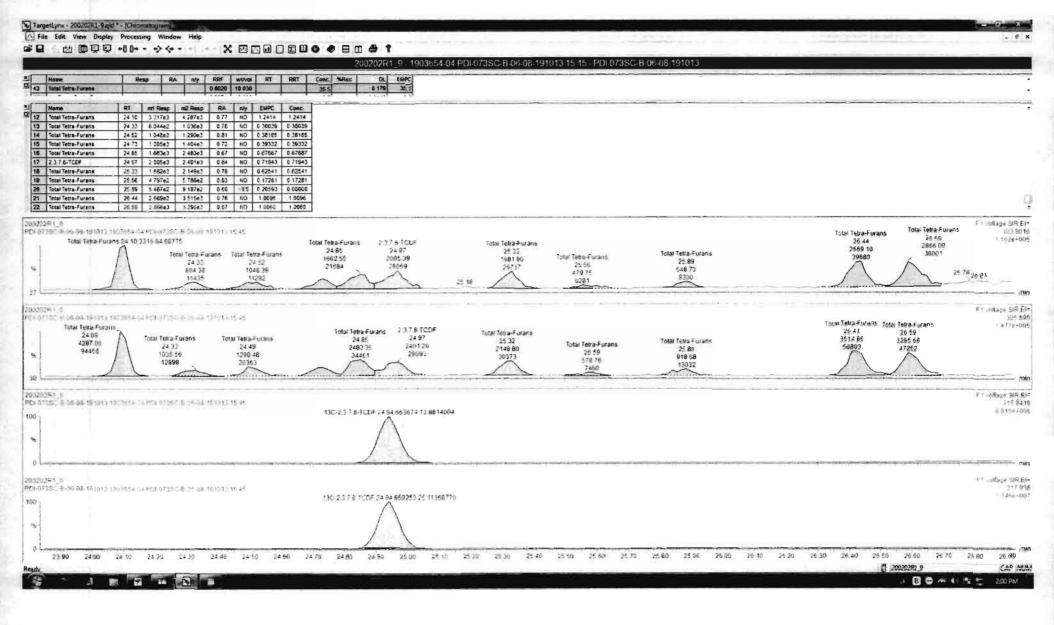




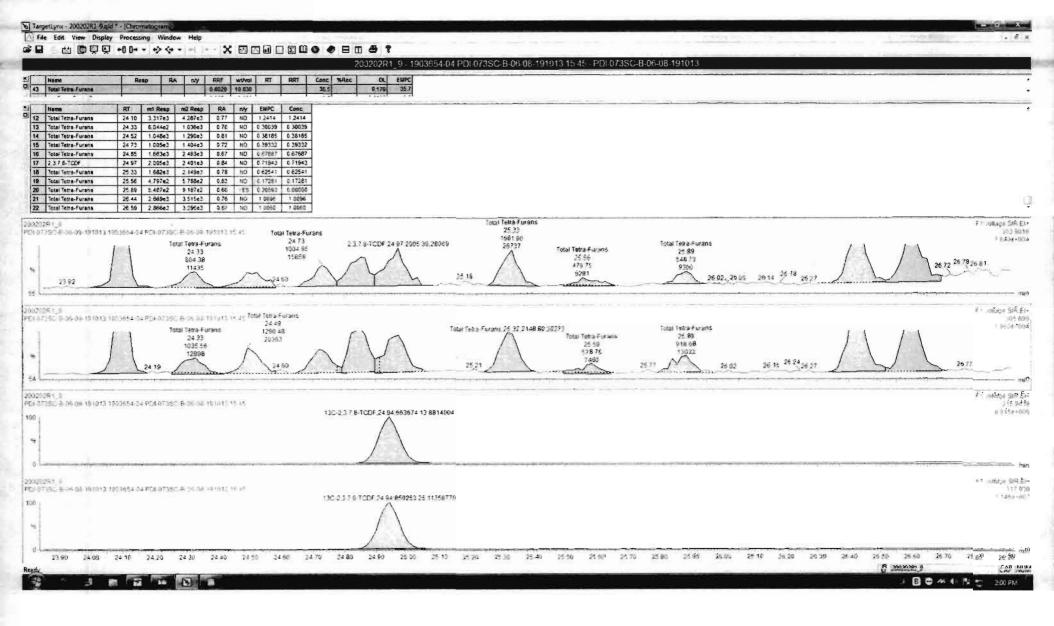
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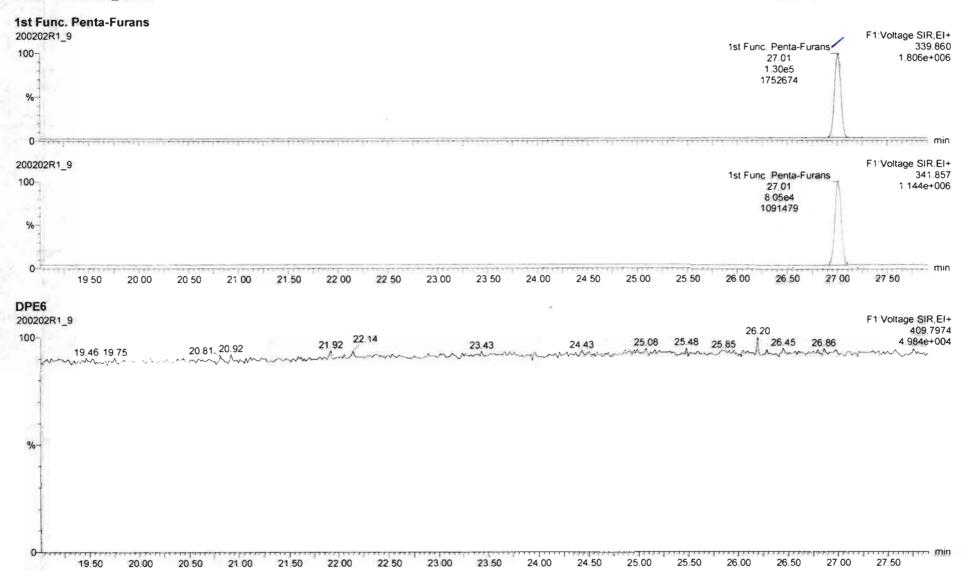


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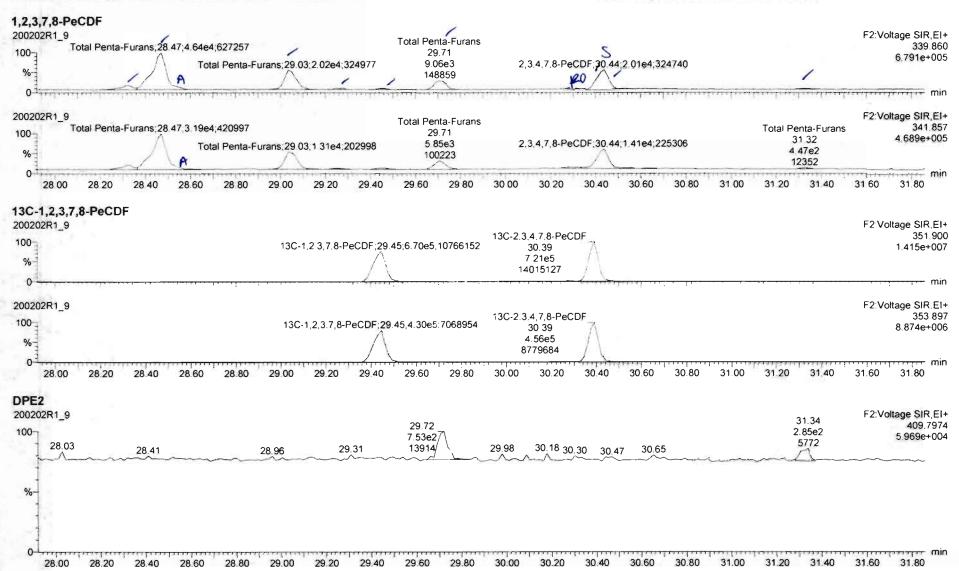
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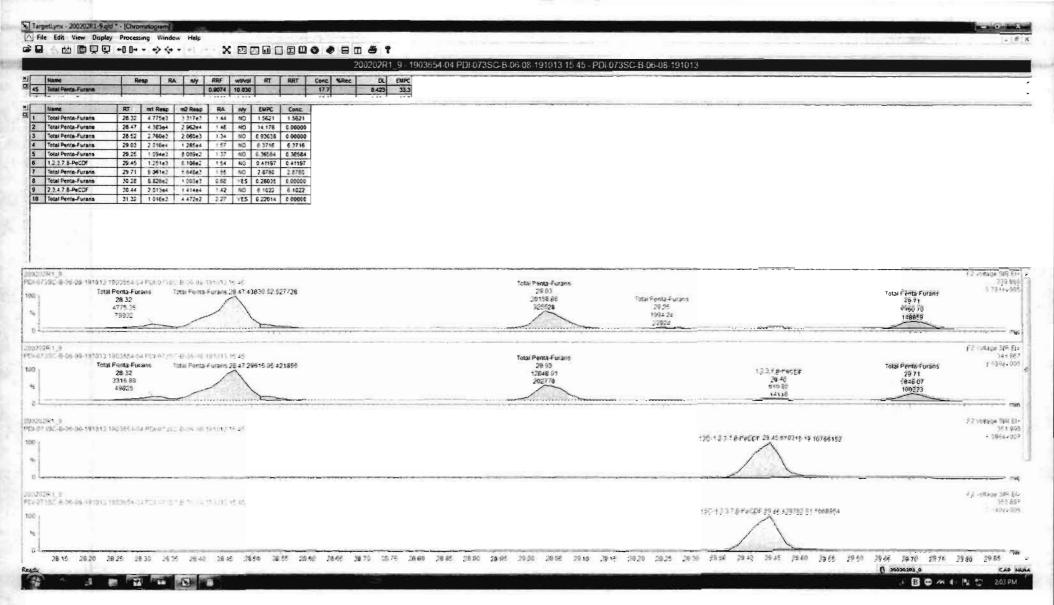


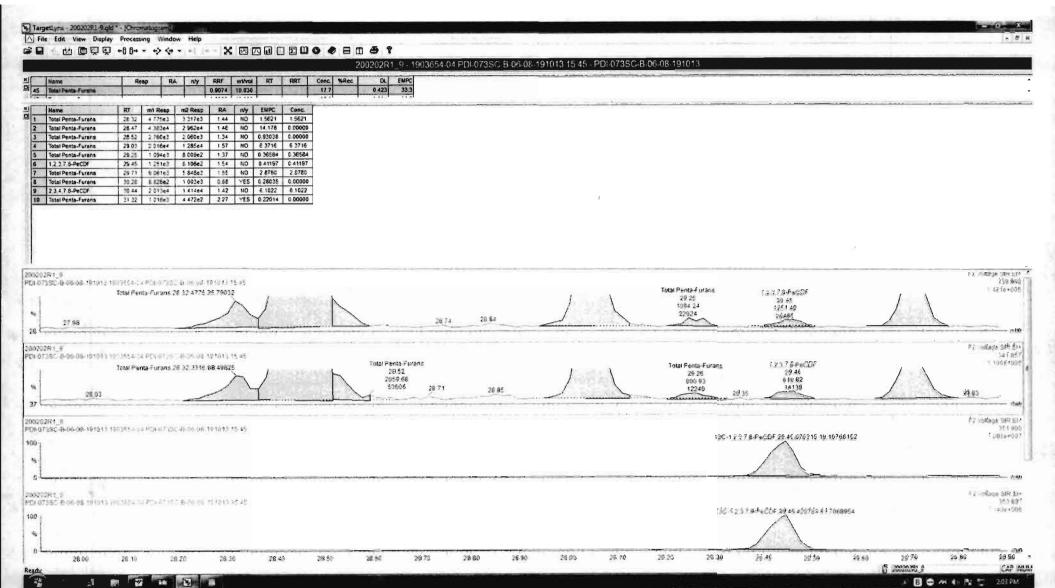
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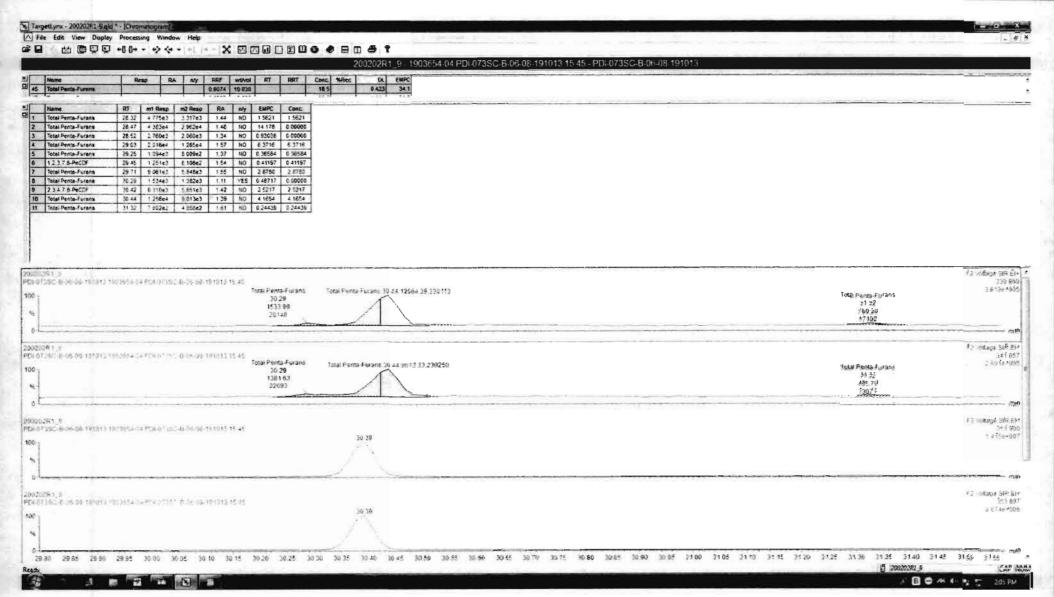
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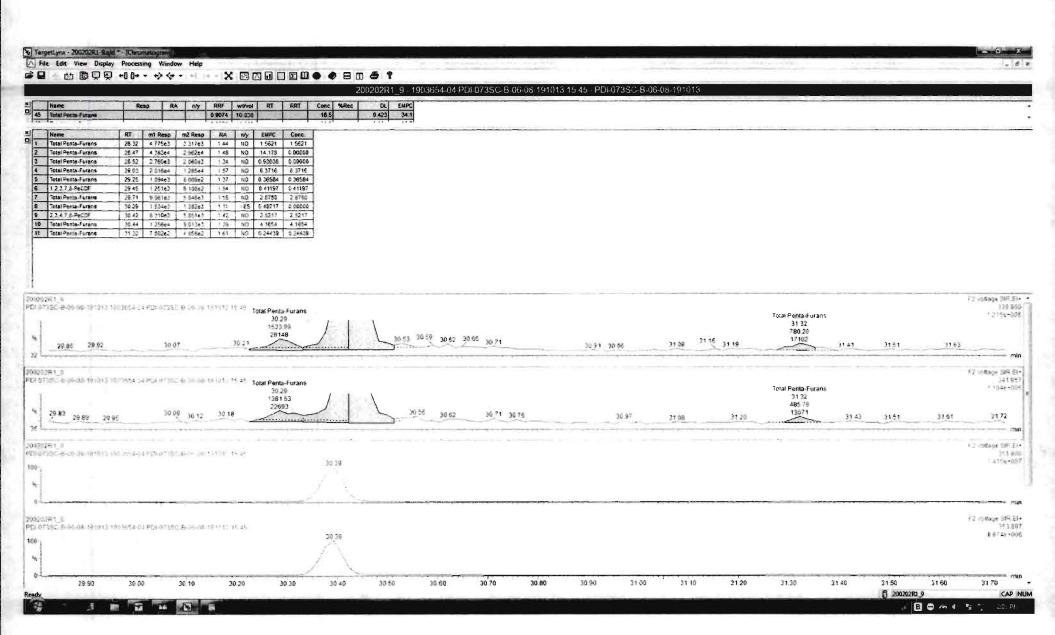




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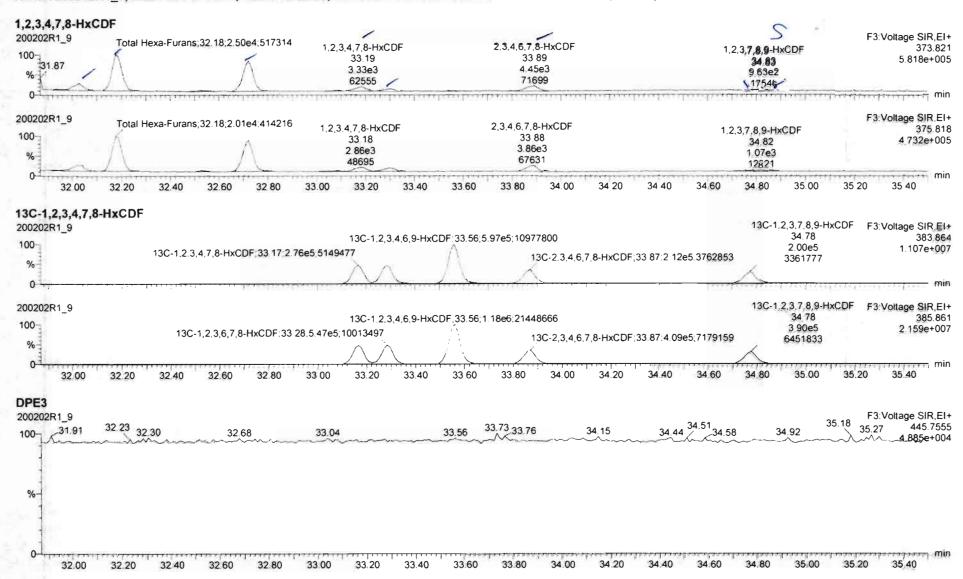


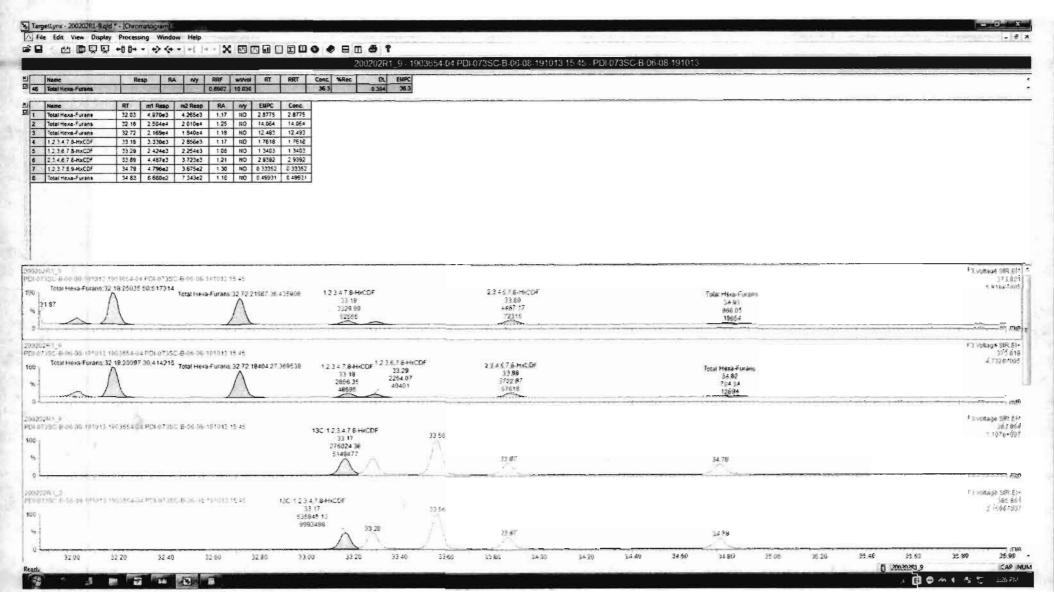
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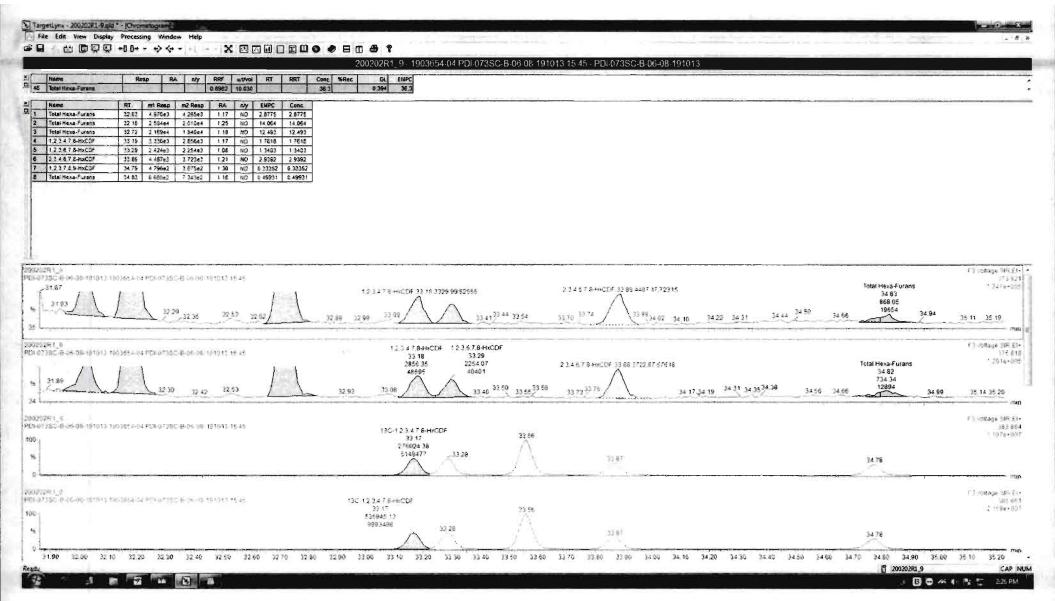
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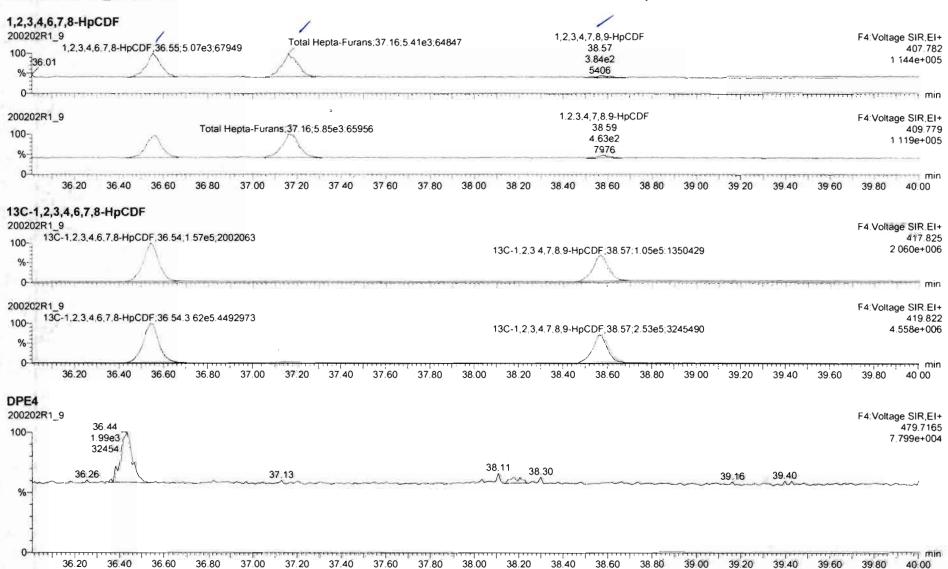


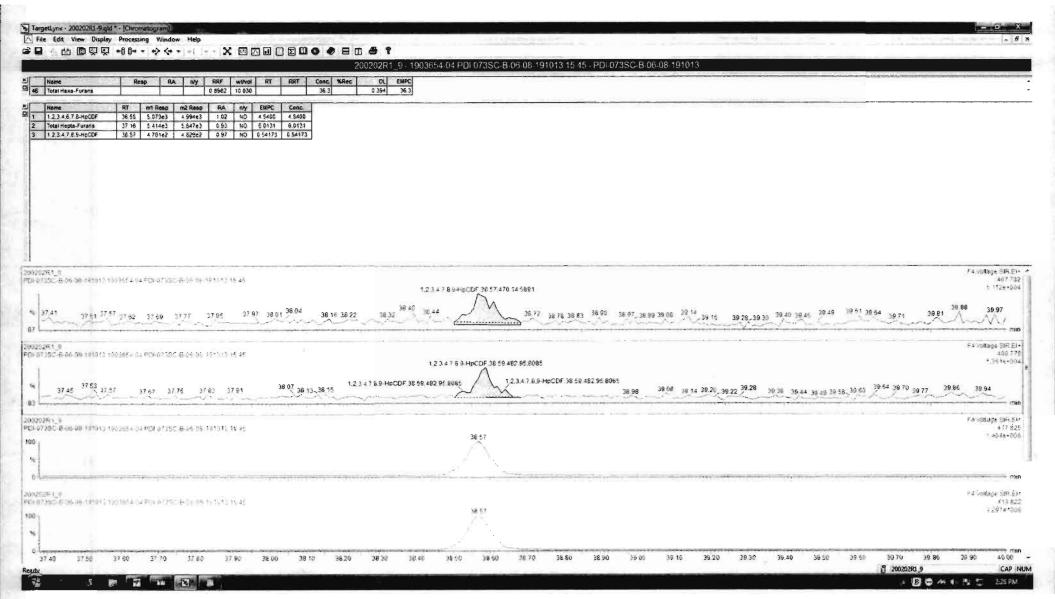
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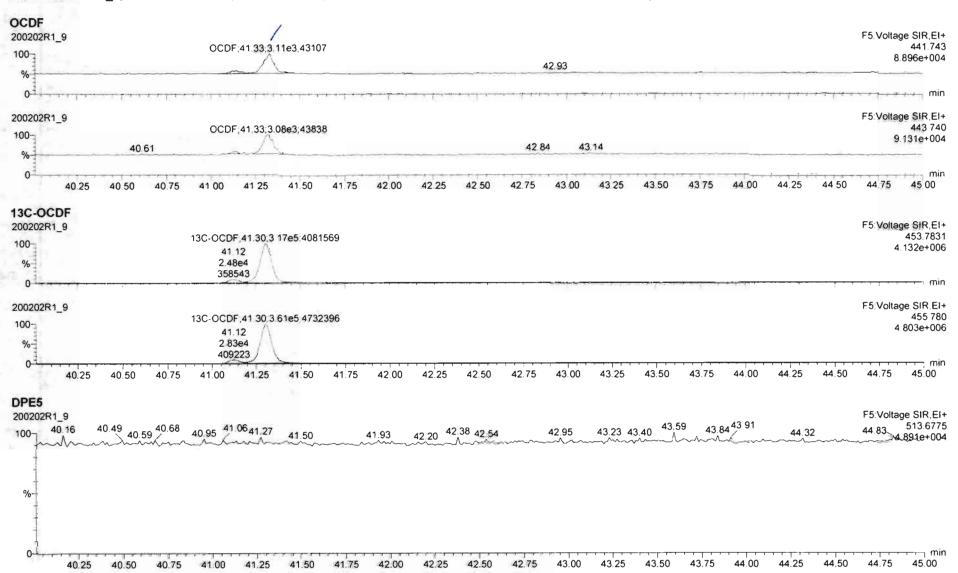


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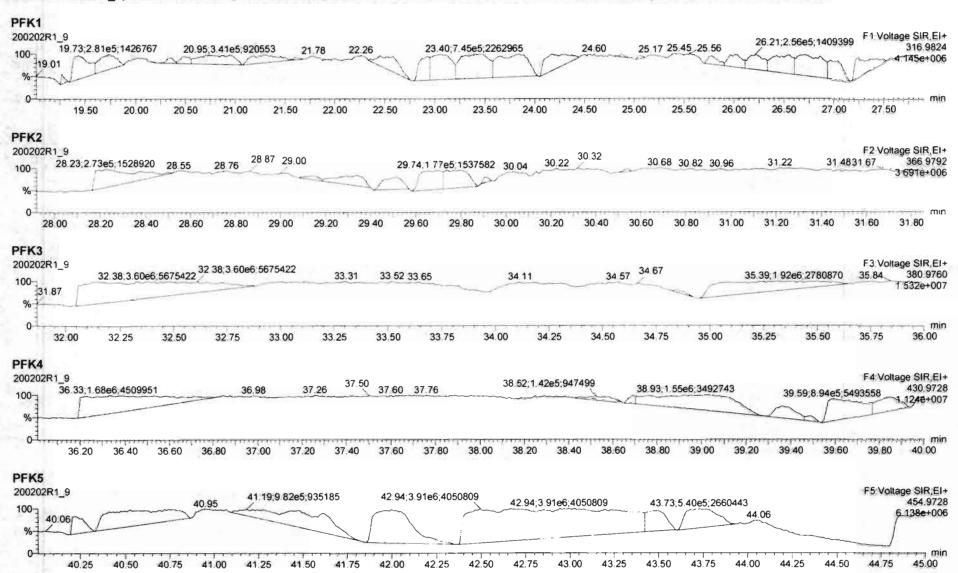
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Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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D: Name: 200318R2_6, Eate: 19 Mar-2020, Time: 07:29:56, ID: 1903654-05RE3 PDI-075SC-B-00-02-191013 20.09, Description: PDI-075SC-B-00-02-191013

2	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2.3,7,8-TCDD	8.90e3	0.74	NO	0.983	10.003	26.036	26.03	1.001	1.001	2.1914		0.158	2.19
2	2 1,2,3,7,8-PeCDD	1.98e4	0.62	NO	0.921	10.003	31.132	31.12	1.001	1.000	4.9521		0.104	4.95
3	3 1,2,3,4,7,8-HxCDD	2.95e4	1.30	NO	1.13	10.003	34.501	34.50	1.000	1.000	7.4261		0.223	7.43
4	4 1,2.3,6,7,8-HxCDD	1.46e5	1.25	NO	0.984	10.003	34.587	34.60	1.000	1.000	35.121		0.237	35.1
5	5 1,2,3,7,8,9-HxCDD	7.01e4	1.28	NO	0.967	10.003	34.863	34.86	1.000	1.000	17.590		0.240	17.6
6	6 1,2,3,4,6,7,8-HpCDD	3.97e6	1.03	NO	1.01	10.003	38.294	38.30	1.000	1.001	1062.0		1.17	1060
7	7 OCDD	4.33e7	0.89	NO	1.05	10.003	41.361	41.37	1.000	1.000	15004 €	*	0.929	15000
8	8 2,3,7,8-TCDF	1.84e6	0.76	NO	0.915	10.003	25.042	25.05	1.001	1.001	418.56	OK	0.359	419
9	9 1,2,3,7,8-PeCDF	4.07e6	1.56	NO	0.959	10.003	29.818	29.83	1.001	1.001	747.36		0.337	747
10	10 2,3,4,7,8-PeCDF	2.08e6	1.54	NO	1.00	10.003	30.835	30.82	1.001	1.001	369.97		0.288	370
11	11 1,2,3,4,7,8-HxCDF	6.00e6	1.22	NO	1.04	10.003	33.639	33.65	1.000	1.000	1164.5		0.312	1160
12	12 1,2,3,6,7,8-HxCDF	1.66e6	1.18	NO	1.01	10.003	33.767	33.77	1.000	1.000	322.62		0.321	323
13	13 2,3,4,6,7,8-HxCDF	4.45e5	1.23	NO	1.09	10.003	34.355	34.33	1.001	1.000	83.853		0.337	83.9
14	14 1,2,3,7,8,9-HxCDF	6.15e5	1.21	NO	1.03	10.003	35.254	35.25	1.002	1.002	135.85		0.442	136
15	15 1,2,3,4,6,7,8-HpCDF	2.66e6	1.00	NO	1.05	10.003	36.925	36.91	1.001	1.001	647.25		0.518	647
16	16 1,2,3,4,7,8,9-HpCDF	7.31e5	1.00	NO	1.21	10.003	38.933	38.94	1.000	1.000	201.43		0.557	201
17	17 OCDF	5.49e6	88.0	NO	0.947	10.003	41.531	41.54	1.000	1.000	1606.3		0.367	1610
18	18 13C-2,3,7,8-TCDD	8.26e5	0.77	NO	1.18	10.003	25.965	26.00	1.029	1.030	122.50	61.3	0.197	
19	19 13C-1,2,3,7,8-PeCDD	8.66e5	0.63	NO	0.864	10.003	31.195	31.11	1.236	1.233	176.05	88.1	0.230	
20	20 13C-1,2,3,4,7,8-HxCDD	7.02e5	1.27	NO	0.754	10.003	34.496	34.49	1.014	1.014	163.33	81.7	0.286	ì
21	21 13C-1,2,3,6,7,8-HxCDD	8.46e5	1.27	NO	0.925	10.003	34.605	34.59	1.017	1.017	160.42	80.2	0.233	
22	22 13C-1,2,3,7,8,9-HxCDD	8.23e5	1.22	NO	0.829	10.003	34.867	34.85	1.025	1.024	174.19	87.1	0.260	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.43e5	1.07	NO	0.598	10.003	38.330	38.28	1.127	1.125	217.98	109	0.372	
24	24 13C-OCDD	1.10e6	0.90	NO	0.571	10.003	41.484	41.36	1.219	1.216	337.38	84.4	0.408	};
25	25 13C-2,3,7,8-TCDF	9.63e5	0.78	NO	1.09	10.003	24.978	25.02	0.990	0.991	112.82	56.4	0.271	
26	26 13C-1,2,3,7,8-PeCDF	1.14e6	1.60	NO	0.876	10.003	29:855	29.80	1.183	1.181	165.46	82.8	0.405	
27	27 13C-2,3,4,7,8-PeCDF	1.12e6	1.57	NO	0.844	10.003	30.875	30.80	1.223	1.220	169.75	84.9	0.420	
28	28 13C-1,2,3,4,7,8-HxCDF	9.92e5	0.51	NO	1.00	10.003	33.642	33.64	0.989	0.989	174.13	87.1	0.281	
29	29 13C-1,2,3,6,7,8-HxCDF	1.02e6	0.52	NO	1.12	10.003	33.751	33.76	0:992	0.992	159.62	79.8	0.251	
30	30 13C-2,3,4,6,7,8-HxCDF	9.72e5	0.52	NO	1.04	10.003	34.333	34.32	1.009	1.009	164.83	82.4	0.271	
31	31 13C-1,2,3,7,8,9-HxCDF	8.82e5	0.52	NO	0.873	10.003	35.207	35.18	1.035	1.034	177.32	88.7	0.322	

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100000	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC	
32	32 13C-1,2,3,4,6,7,8-HpCDF	7.82e5	0.44	NO	0.771	10.003	36.925	36.89	1.085	1.084	178.19	89.1	0.329		
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.00e5	0.44	NO	0.519	10.003	39.014	38.93	1.147	1.144	202.71	101	0.488	American mets	Strike interiorial annual s
34	34 13C-OCDF	1.44e6	0.89	NO	0.696	10.003	41.665	41.53	1.225	1.221	364.06	91.0	0.253		
35	35 37CI-2.3,7,8-TCDD	3.01e5			1.17	10.003	25.976	26.03	1.029	1.031	44.987	56.3	0.0651	l	ı
36	36 13C-1,2,3,4-TCDD	1.14e6	0.79	NO	1.00	10.003	25.050	25.24	1.000	1.000	199.94	100	0.233		
37	37 13C-1,2,3,4-TCDF	1.57e6	0.80	NO	1.00	10.003	23.190	23.46	1.000	1.000	199.94	100	0.295		
38	38 13C-1,2,3,4,6,9-HxCDF	1.14e6	0.51	NO	1.00	10.003	34.020	34.02	1.000	1.000	199.94	100	0.281		
39	39 Total Tetra-Dioxins				0.983	10.003	24.620		0.000		21.356		0.158	21.4	
40	40 Total Penta-Dioxins				0.921	10.003	29.960		0.000		42.819		0.104	43.0	
41	41 Total Hexa-Dioxins				0.984	10.003	33.635		0.000		284.34		0.243	284	İ
42	42 Total Hepta-Dioxins				1.01	10.003	37.640		0.000		2289.2		1.17	2290	
43	43 Total Tetra-Furans				0.915	10.003	23.610		0.000		1348.2		0.359	1350	P
44	44 1st Func. Penta-Furans				0.959	10.003	27.090		0.000		131.15		0.0542	131	
45	45 Total Penta-Furans				0.959	10.003	29.275		0.000		1950.5		0.319	1970	
46	46 Total Hexa-Furans				1.09	10.003	33.555		0.000		2180.7		0.334	2200	ρ
47	47 Total Hepta-Furans				1.05	10.003	37.835		0.000		1936.0		0.572	1940	

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Name: 200318R2_6, Date: 19-Mar-2020, Time: 07:29:56, ID: 1903654-05RE3 PDI-075SC-B-00-02-191013 20.09, Description: PDI-075SC-B-00-02-191013

Tetra-Dioxins

Section .	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.92	9.627e4	1.347e5	1.273e4	1.625e4	0.78	NO	2.897e4	7.1316	7.1316	0.158
2	Total Tetra-Dioxins	22.47	2.460e4	3.617e4	3.149e3	4.202e3	0.75	NO	7.351e3	1.8095	1.8095	0.158
3	Total Tetra-Dioxins	22.70	2.384e4	3.196e4	1.263e3	1.667e3	0.76	NO	2.930e3	0.72123	0.72123	0.158
4	Total Tetra-Dioxins	23.80	7.225e3	1.244e4	9.330e2	1.194e3	0.78	NO	2.127e3	0.52345	0.52345	0.158
5	Total Tetra-Dioxins	24.06	3.155e4	4.264e4	1.567e3	1.864e3	0.84	NO	3.431e3	0.84458	0.84458	0.158
6	Total Tetra-Dioxins	24.13	5.578e4	7.004e4	3.023e3	3.770e3	0.80	NO	6.793e3	1.6721	1.6721	0.158
7	Total Tetra-Dioxins	24.33	1.162e4	1.251e4	8.870e2	1.159e3	0.77	NO	2.046e3	0.50360	0.50360	0.158
8	Total Tetra-Dioxins	24.64	8.342e3	1.129e4	6.617e2	7.796e2	0.85	NO	1.441e3	0.35478	0.35478	0.158
9	Total Tetra-Dioxins	24.82	1.824e4	2.467e4	1.678e3	2.099e3	0.80	NO	3.777e3	0.92980	0.92980	0.158
10	Total Tetra-Dioxins	25.23	1.554e4	1.569e4	1.064e3	1.436e3	0.74	NO	2.500e3	0.61535	0.61535	0.158
11	Total Tetra-Dioxins	25.39	4.837e3	7.019e3	3.468e2	4.379e2	0.79	NO	7.846e2	0.19314	0.19314	0.158
12	Total Tetra-Dioxins	25.72	2.624e4	4.253e4	3.463e3	4.314e3	0.80	NO	7.777e3	1.9143	1.9143	0.158
13	Total Tetra-Dioxins	25.89	5.535e3	9.662e3	4.006e2	4.916e2	0.81	NO	8.921e2	0.21961	0.21961	0.158
14	2,3,7,8-TCDD	26.03	5.474e4	6.708e4	3.774e3	5.129e3	0.74	NO	8.903e3	2.1914	2.1914	0.158
15	Total Tetra-Dioxins	26.35	3.573e4	4.189e4	1.992e3	2.345e3	0.85	NO	4.337e3	1.0675	1.0675	0.158
16	Total Tetra-Dioxins	26.48	6.754e3	6.933e3	3.961e2	5.258e2	0.75	NO	9.218e2	0.22692	0.22692	0.158
17	Total Tetra-Dioxins	27.01	9.108e3	1.032e4	7.037e2	1.073e3	0.66	NO	1.776e3	0.43724	0.43724	0.158

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UNStruct 2003/18Fi2_25; Date: 19-Mar-2020; Time: 07:29:56; ID: 1903654-05RE3 PDI-075SC-B-00-02-191013 20:09, Description: PDI-075SC-B-00-02-191013

Penta-Dioxins

13/75 7/80/7	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.85	2.402e5	3.811e5	1.786e4	2.889e4	0.62	NO	4.674e4	11.709	11.709	0.104
2	Total Penta-Dioxins	29.34	6.580e4	1.003e5	3.946e3	6.064e3	0.65	NO	1.001e4	2.5075	2.5075	0.104
3	Total Penta-Dioxins	29.86	1.925e5	3.028e5	1.093e4	1.673e4	0.65	NO	2.766e4	6.9289	6.9289	0.104
4	Total Penta-Dioxins	30.04	1.255e5	2.011e5	7.316e3	1.160e4	0.63	NO	1.892e4	4.7390	4.7390	0.104
5	Total Penta-Dioxins	30.13	8.954e4	1.360e5	4.747e3	7.165e3	0.66	NO	1.191e4	2.9840	2.9840	0.104
6	Total Penta-Dioxins	30.35	1.025e5	1.636e5	8.002e3	1.279e4	0.63	NO	2.080e4	5.2094	5.2094	0.104
7	Total Penta-Dioxins	30.68	2.379e4	3.343e4	1.177e3	1.832e3	0.64	NO	3.008e3	0.75362	0.75362	0.104
8	1,2,3,7,8-PeCDD	31.12	1.496e5	2.385e5	7.598e3	1.217e4	0.62	NO	1.977e4	4.9521	4.9521	0.104
9	Total Penta-Dioxins	31.20	3.609e4	5.813e4	2.302e3	3.339e3	0.69	NO	5.641e3	1.4130	1.4130	0.104
10	Total Penta-Dioxins	31.42	9.996e3	9.486e3	4.783e2	5.035e2	0.95	YES	0.000e0	0.00000	0.20557	0.104
11	Total Penta-Dioxins	31.51	4.592e4	7.856e4	2.585e3	3.893e3	0.66	NO	6.477e3	1.6226	1.6226	0.104

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.03	4.373e6	3.534e6	1.998e5	1.597e5	1.25	NO	3.595e5	92.402	92.402	0.243
2	Total Hexa-Dioxins	33.59	5.525e5	4.792e5	2.704e4	2.238e4	1.21	NO	4.942e4	12.704	12.704	0.243
3	Total Hexa-Dioxins	33.84	3.707e6	3.040e6	2.386e5	1.928e5	1.24	NO	4.314e5	110.88	110.88	0.243
4	Total Hexa-Dioxins	33.94	1.942e5	1.438e5	1.008e4	7.494e3	1.35	NO	1.758e4	4.5179	4.5179	0.243
5	1,2,3,4,7,8-HxCDD	34.50	3.154e5	2.473e5	1.665e4	1.286e4	1.30	NO	2.951e4	7.4261	7.4261	0.223
6	1,2,3,6,7,8-HxCDD	34.60	1.433e6	1.197e6	8.114e4	6.512e4	1.25	NO	1.463e5	35.121	35.121	0.237
7	Total Hexa-Dioxins	34.78	1.481e5	1.289e5	8.022e3	6.364 e 3	1.26	NO	1.439e4	3.6980	3.6980	0.243
8	1,2,3,7,8,9-HxCDD	34.86	6.946e5	5.665e5	3.934e4	3.071e4	1.28	NO	7.006e4	17.590	17.590	0.240

Hepta-Dioxins

W. 18	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.29	3.068e7	3.001e7	2.326e6	2.262e6	1.03	NO	4.588e6	1227.2	1227.2	1.17
2	1,2,3,4,6,7,8-HpCDD	38.30	2.542e7	2.473e7	2.014e6	1.956e6	1.03	NO	3.970e6	1062.0	1062.0	1.17

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Warrie 2003/13/02_8, Date: 10-Mar-2020, Time: 07:29:56, ID: 1903654-05RE3 PDI-075SC-B-00-02-191013 20.09, Description: PDI-075SC-B-00-02-191013

Tetra-Furans

95-(1)	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.73	2.499e4	2.889e4	2.063e3	2.598e3	0.79	NO	4.661e3	1.0573	1.0573	0.359
2	Total Tetra-Furans	20.26	1.373e5	1.733e5	1.113e4	1.469e4	0.76	NO	2.582e4	5.8574	5.8574	0.359
3	Total Tetra-Furans	20.78	5.180e4	6.410e4	3.580e3	5.363e3	0.67	NO	8.942e3	2.0287	2.0287	0.359
4	Total Tetra-Furans	20.90	4.490e6	5.992e6	4.417e5	5.845e5	0.76	NO	1.026e6	232.82	232.82	0.359
5	Total Tetra-Furans	21.42	1.364e5	1.907e5	2.502e4	3.274e4	0.76	NO	5.776e4	13.103	13.103	0.359
6	Total Tetra-Furans	21.86	9.142e5	1.155e6	1.134e5	1.484e5	0.76	NO	2.618e5	59.399	59.399	0.359
7	Total Tetra-Furans	22.52	2.247e5	2.822e5	2.630e4	3.481e4	0.76	NO	6.112e4	13.866	13.866	0.359
8	Total Tetra-Furans	22.68	8.958e5	1.122e6	2.487e4	3.234e4	0.77	NO	5.721e4	12.978	12.978	0.359
9	Total Tetra-Furans	23.06	7.486e4	9.209e4	4.422e3	5.834e3	0.76	NO	1.026e4	2.3266	2.3266	0.359
10	Total Tetra-Furans	23.21	4.025e4	4.854e4	4.430e3	5.686e3	0.78	NO	1.012e4	2.2949	2.2949	0.359
11	Total Tetra-Furans	23.48	8.016e5	1.085e6	1.031e5	1.368e5	0.75	NO	2.399e5	54.432	54.432	0.359
12	Total Tetra-Furans	24.09	2.520e7	3.300e7	7.406e5	9.697e5	0.76	NO	1.710e6	388.01	388.01	0.359
13	Total Tetra-Furans	24.28	2.805e5	3.674e5	2.263e4	2.925e4	0.77	NO	5.188e4	11.768	11.768	0.359
14	Total Tetra-Furans	24.51	4.012e4	4.881e4	3.616e3	4.277e3	0.85	NO	7.893e3	1.7907	1.7907	0.359
15	Total Tetra-Furans	24.76	1.248e5	1.627e5	1.013e4	1.347e4	0.75	NO	2.360e4	5.3549	5.3549	0.359
16	Total Tetra-Furans	24.90	9.054e5	1.204e6	7.438e4	9.757e4	0.76	NO	1.720e5	39.009	39.009	0.359
17	2,3,7,8-TCDF	25.05	9.081e6	1.186e7	7.964e5	1.049e6	0.76	NO	1.845e6	418.56	418.56	0.359
18	Total Tetra-Furans	25.18	5.724e4	8.185e4	3.616e3	5.407e3	0.67	NO	9.023e3	2.0469	2.0469	0.359
19	Total Tetra-Furans	25.41	6.471e5	8.227e5	4.500e4	5.839e4	0.77	NO	1.034e5	23.455	23.455	0.359
20	Total Tetra-Furans	25.68	3.446e4	5.023e4	3.480e3	4.622e3	0.75	NO	8.102e3	1.8379	1.8379	0.359
21	Total Tetra-Furans	26.57	3.714e4	2.222e4	1.856e3	1.211e3	1.53	YES	0.000e0	0.00000	0.48631	0.359
22	Total Tetra-Furans	26.65	6.464e4	8.242e4	4.817e3	5.925e3	0.81	NO	1.074e4	2.4369	2.4369	0.359
23	Total Tetra-Furans	26.83	7.358e4	1.087e5	5.903e3	7.048e3	0.84	NO	1.295e4	2.9380	2.9380	0.359
24	Total Tetra-Furans	27.22	1.022e6	1.145e6	1.027e5	1.212e5	0.85	NO	2.239e5	50.787	50.787	0.359

Penta-Furans function 1

(P. 19)	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.23	6.040e6	3.874e6	4.345e5	2.759e5	1.57	NO	7.105e5	131.15	131.15	0.0542

Work Order 1903654 Page 271 of 1184 Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200318R2\200318R2-6.qld

Last Altered: Thursday, March 19, 2020 2:52:48 PM Pacific Daylight Time Thursday, March 19, 2020 2:53:12 PM Pacific Daylight Time

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Penta-Furans

office of the latter	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.64	6.682e5	4.233e5	4.049e4	2.632e4	1.54	NO	6.681e4	12.332	12.332	0.319
2	Total Penta-Furans	28.79	1.639e7	1.045e7	1.128e6	7.258e5	1.55	NO	1.854e6	342.23	342.23	0.319
3	Total Penta-Furans	29.32	8.562e4	5.203e4	3.693e3	2.505e3	1.47	NO	6.198e3	1.1442	1.1442	0.319
4	Total Penta-Furans	29.40	8.747e5	5.957e5	5.541e4	3.565e4	1.55	NO	0.000e0	0.00000	16.810	0.319
5	Total Penta-Furans	29.45	5.004e5	3.055e5	2.249e4	1.387e4	1.62	NO	0.000e0	0.00000	6.7112	0.319
6	Total Penta-Furans	29.63	4.856e6	3.131e6	2.876e5	1.841e5	1.56	NO	4.717e5	87.075	87.075	0.319
7	1,2,3,7,8-PeCDF	29.83	3.983e7	2.499e7	2.484e6	1.590e6	1.56	NO	4.074e6	747.36	747.36	0.337
8	Total Penta-Furans	29.90	7.201e5	4.154e5	2.489e4	1.437e4	1.73	NO	3.926e4	7.2471	7.2471	0.319
9	Total Penta-Furans	30.09	1.619e7	1.054e7	9.626e5	6.226e5	1.55	NO	1.585e6	292.61	292.61	0.319
10	Total Penta-Furans	30.70	4.367e5	2.769e5	2.238e4	1.394e4	1.61	NO	3.632e4	6.7039	6.7039	0.319
11	2,3,4,7,8-PeCDF	30.82	2.496e7	1.591e7	1.263e6	8.197e5	1.54	NO	2.083e6	369.97	369.97	0.288
12	Total Penta-Furans	30.85	1.046e7	6.575e6	2.017e5	1.271e5	1.59	NO	3.289e5	60.711	60.711	0.319
13	Total Penta-Furans	31.75	1.477e6	9.580e5	7.567e4	4.972e4	1.52	NO	1.254e5	23.147	23.147	0.319

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.52	1.124e6	9.462e5	7.901e4	6.521e4	1.21	NO	1.442e5	27.340	27.340	0.334
2	Total Hexa-Furans	32.57	5.957e5	5.391e5	1.853e4	1.574e4	1.18	NO	3.427e4	6.4969	6.4969	0.334
3	Total Hexa-Furans	32.67	1.691e7	1.449e7	5.961e5	4.934e5	1.21	NO	1.089e6	206.55	206.55	0.334
4	Total Hexa-Furans	33.01	1.951e5	1.640e5	8.966e3	7.520e3	1.19	NO	1.649e4	3.1255	3.1255	0.334
5	Total Hexa-Furans	33.19	1.223e7	1.009e7	5.866e5	4.819e5	1.22	NO	1.068e6	202.56	202.56	0.334
6	Total Hexa-Furans	33.55	7.763e5	6.300e5	3.625e4	2.804e4	1.29	NO	6.428e4	12.187	12.187	0.334
7	1,2,3,4,7,8-HxCDF	33.65	6.846e7	5.742e7	3.292e6	2.707e6	1.22	NO	6.000e6	1164.5	1164.5	0.312
8	1,2,3,6,7,8-HxCDF	33.77	1.763e7	1.449e7	8.999e5	7.609e5	1.18	NO	1.661e6	322.62	322.62	0.321
9	Total Hexa-Furans	33.87	3.010e5	2.242e5	1.901e4	1.434e4	1.33	NO	3.335e4	6.3226	6.3226	0.334
10	Total Hexa-Furans	34.03	3.279e5	2.481e5	2.011e4	1.567e4	1.28	NO	3.578e4	6.7829	6.7829	0.334
11	Total Hexa-Furans	34.14	1.130e5	9.363e4	7.540e3	5.683e3	1.33	NO	1.322e4	2.5068	2.5068	0.334
12	Total Hexa-Furans	34.24	1.089e5	7.411e4	5.996e3	3.954e3	1.52	YES	0.000e0	0.00000	1.6794	0.334
13	2,3,4,6,7,8-HxCDF	34.33	4.441e6	3.692e6	2.452e5	2.000e5	1.23	NO	4.453e5	83.853	83.853	0.337
14	1,2,3,7,8,9-HxCDF	35.25	6.039e6	5.074e6	3.368e5	2.786e5	1.21	NO	6.153e5	135.85	135.85	0.442
15	Total Hexa-Furans	35.27	2.922e6	2.231e6	4.868e4	3.732e4	1.30	NO	0.000e0	0.00000	16.303	0.334

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Vista Analytical Laboratory

Dataset:

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Hepta-Furans

and Page	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL	where the other problem and the same
1	1,2,3,4,6,7,8-HpCDF	36.91	1.868e7	1.842e7	1.330e6	1.326e6	1.00	NO	2.655e6	647.25	647.25	0.518	
2	Total Hepta-Furans	37.28	2.911e5	2.857e5	2.017e4	2.062e4	0.98	NO	4.079e4	11.257	11.257	0.572	
3	Total Hepta-Furans	37.49	2.474e7	2.429e7	1.960 e 6	1.939e6	1.01	NO	3.899e6	1076.1	1076.1	0.572	
4	1,2,3,4,7,8,9-HpCDF	38.94	5.398e6	5.376e6	3.661e5	3.649e5	1.00	NO	7.310e5	201.43	201.43	0.557	

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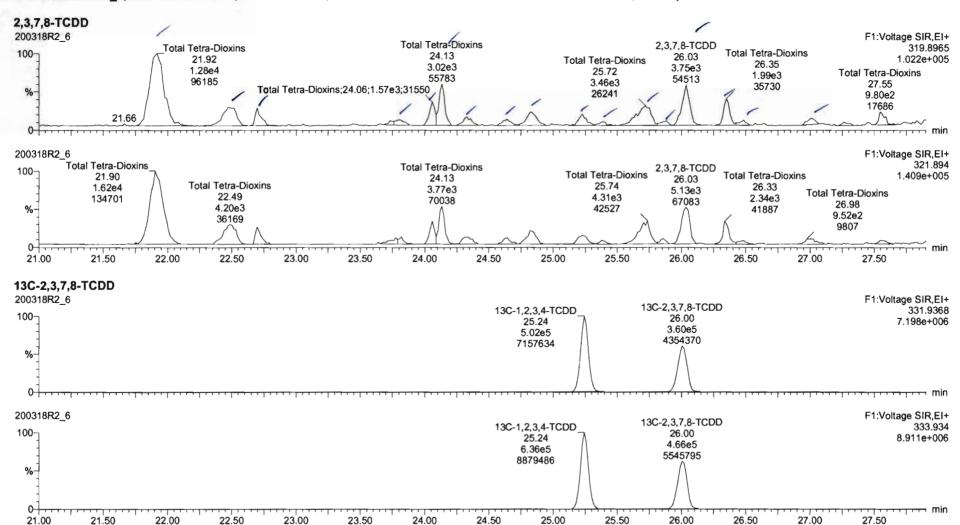
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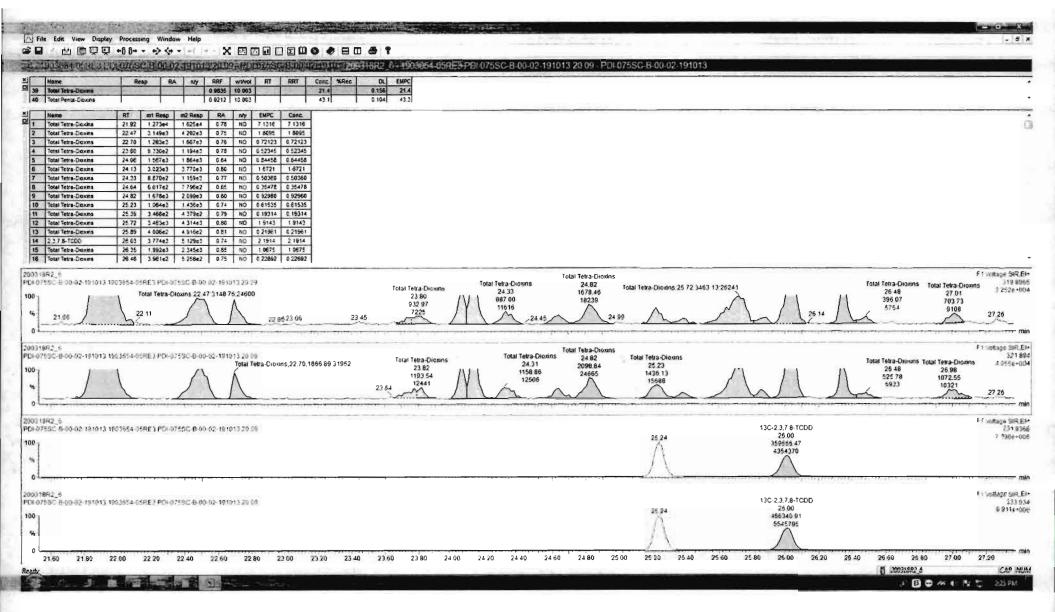
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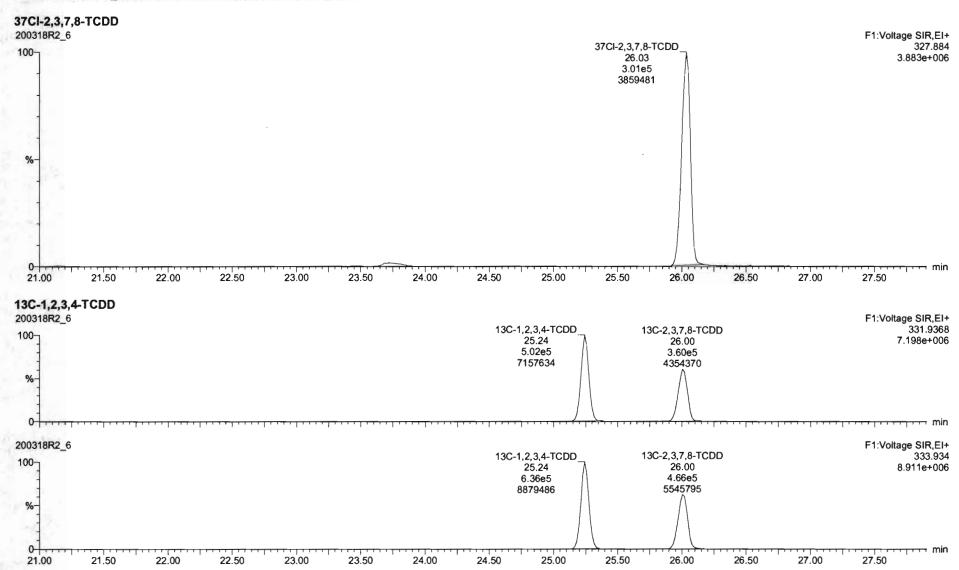
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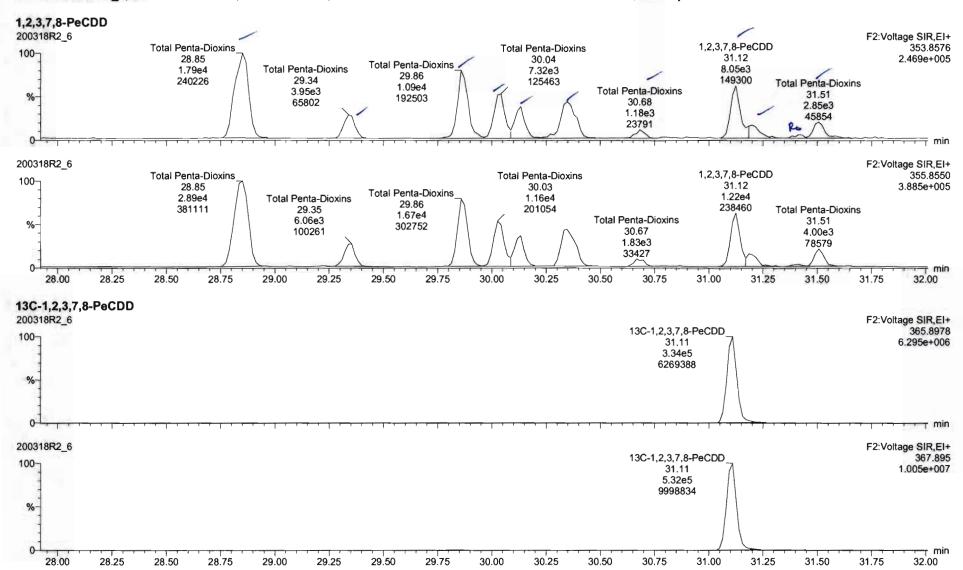
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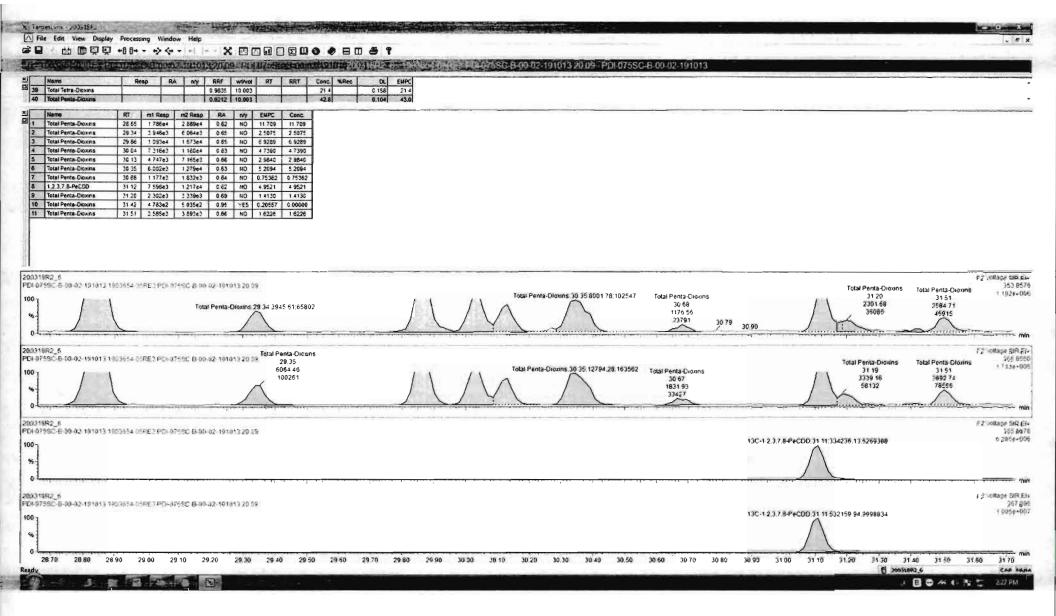
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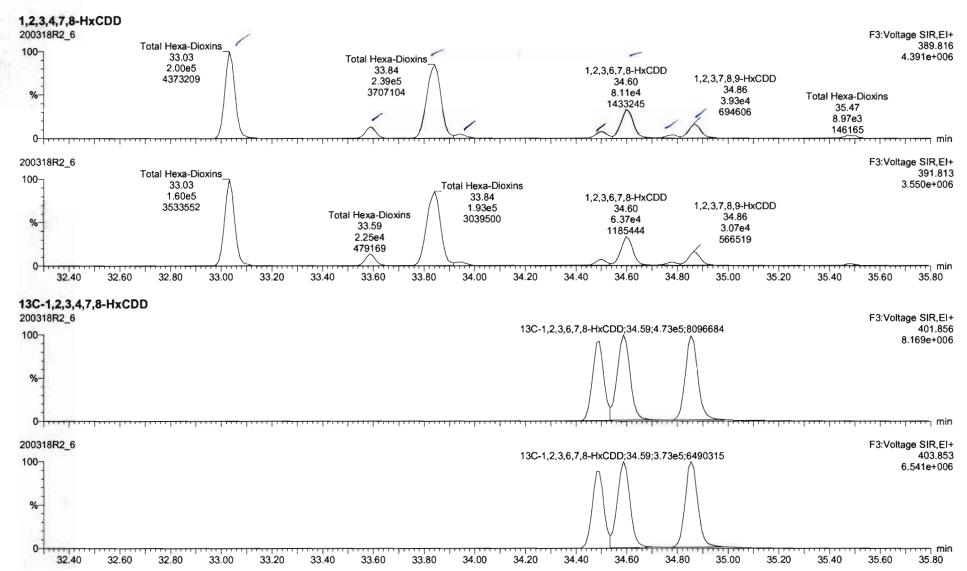
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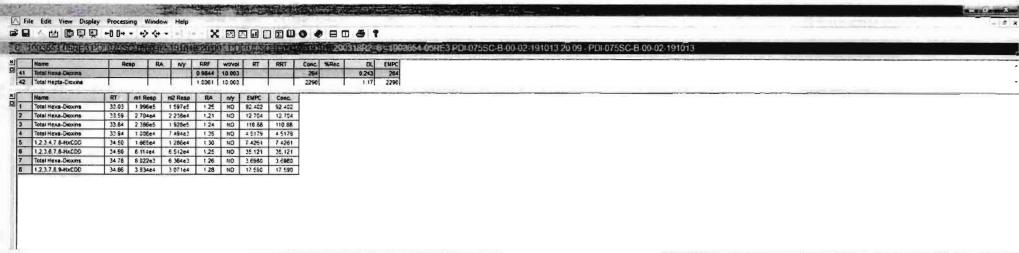


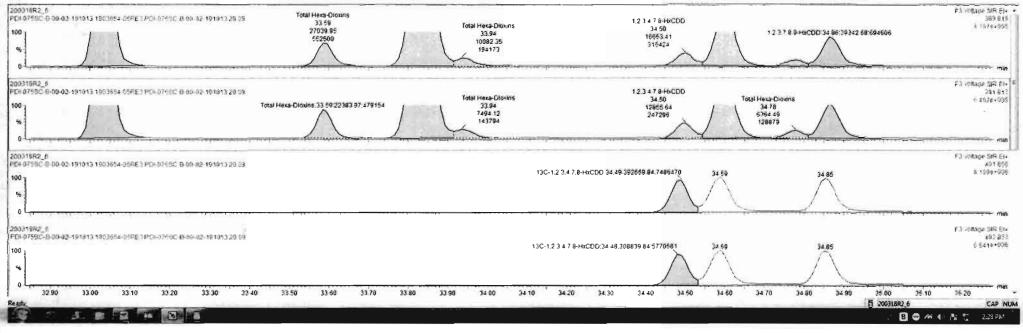


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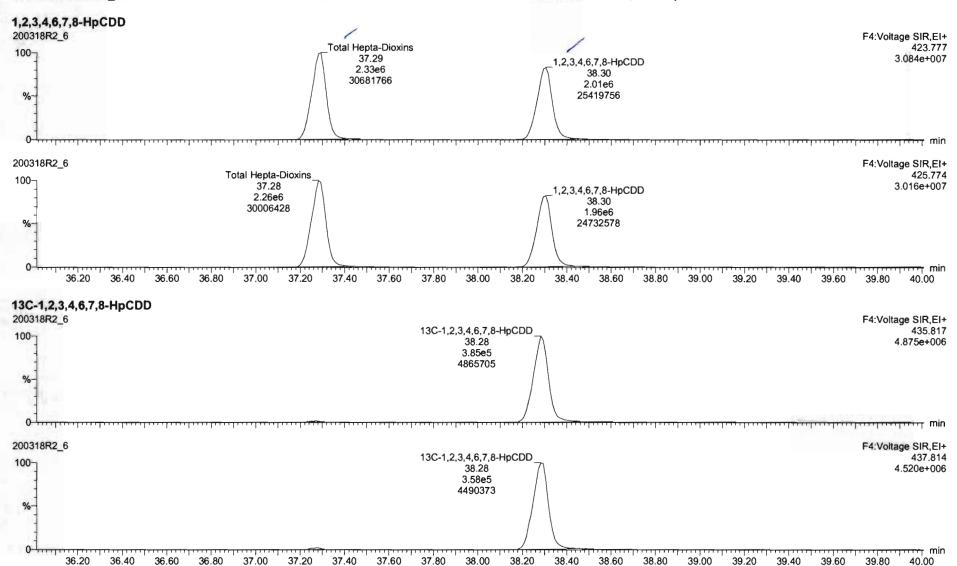




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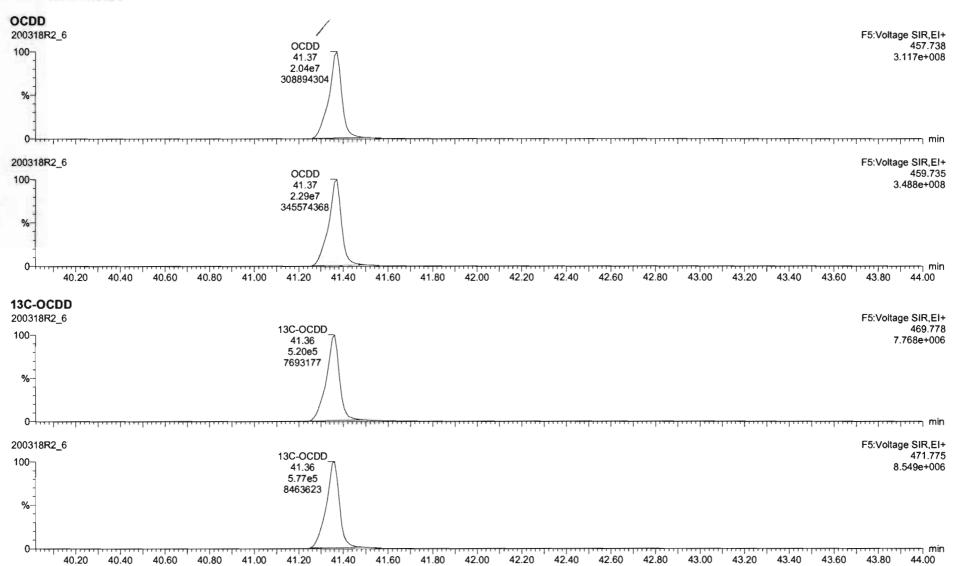
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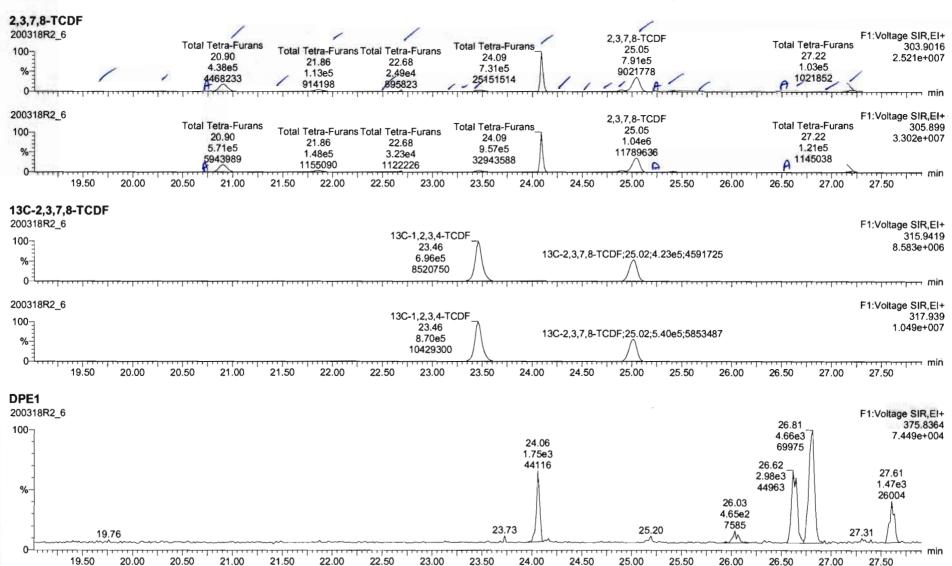
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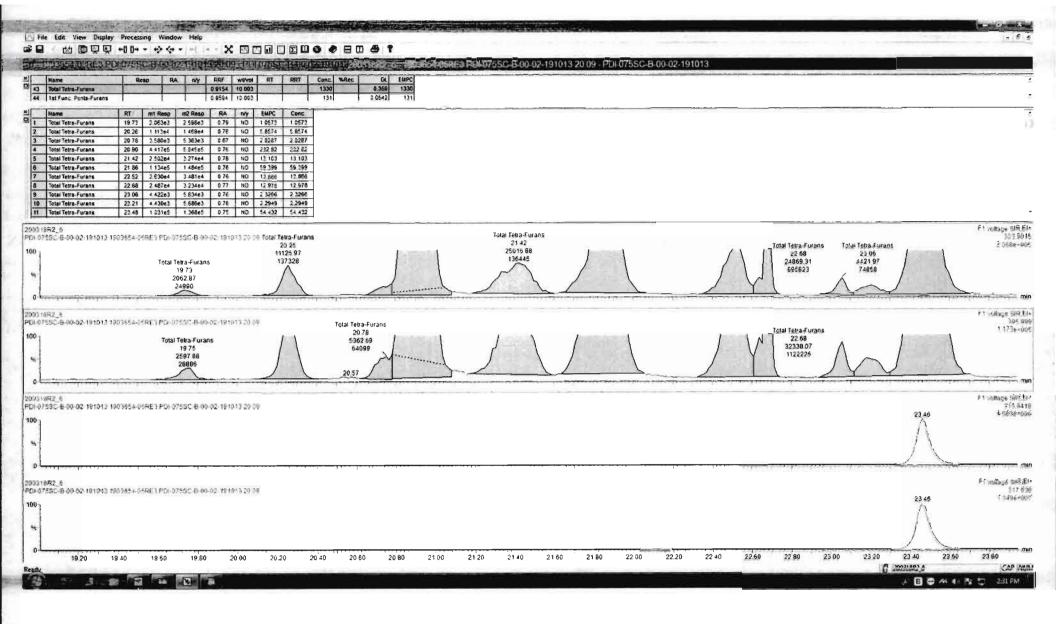
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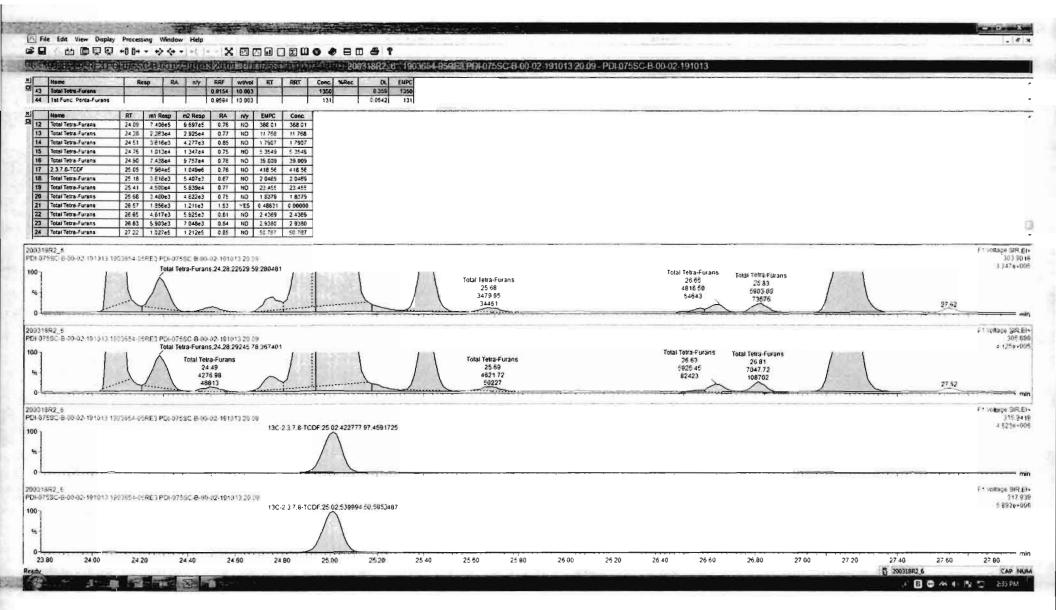
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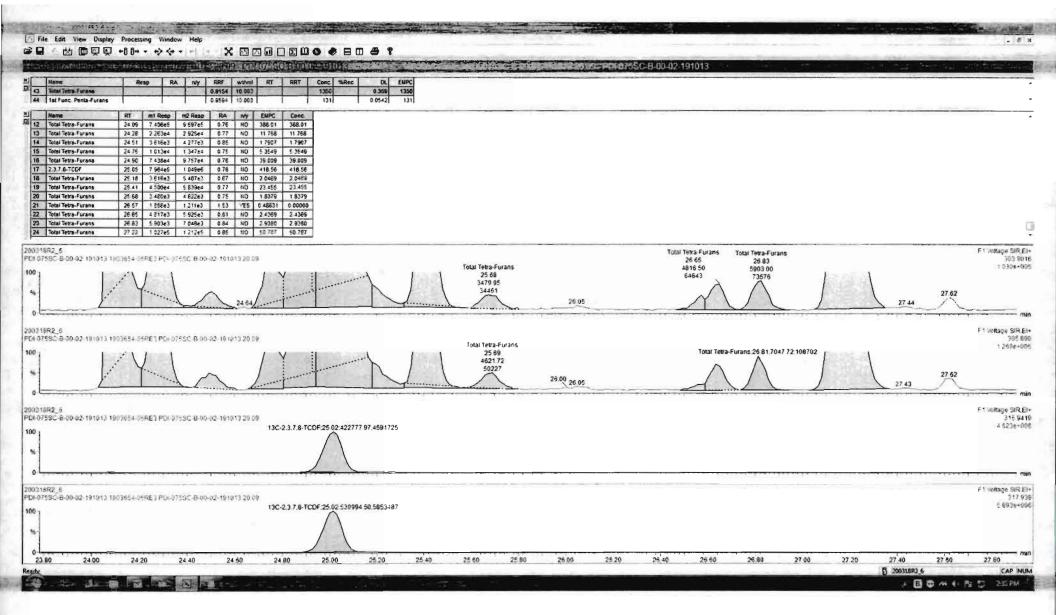




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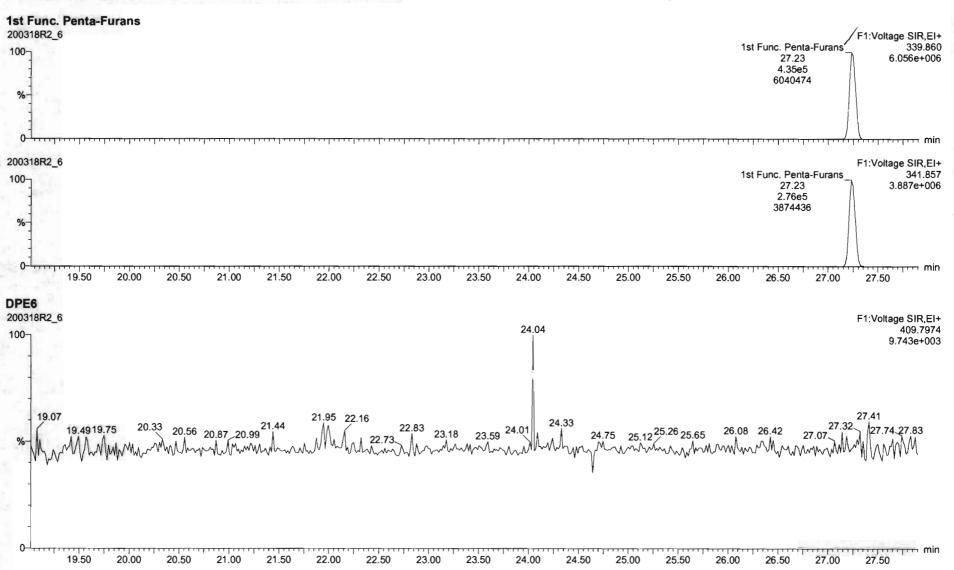
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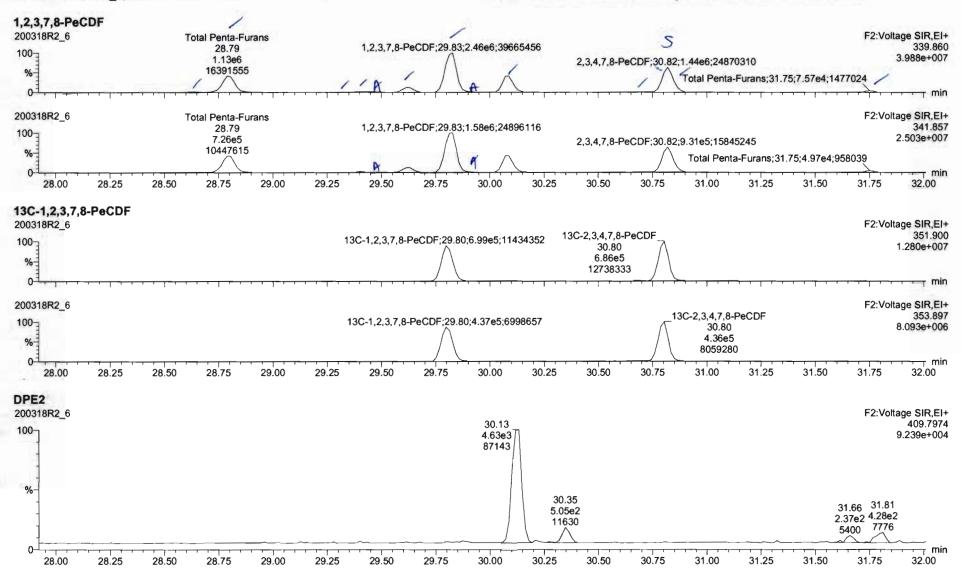
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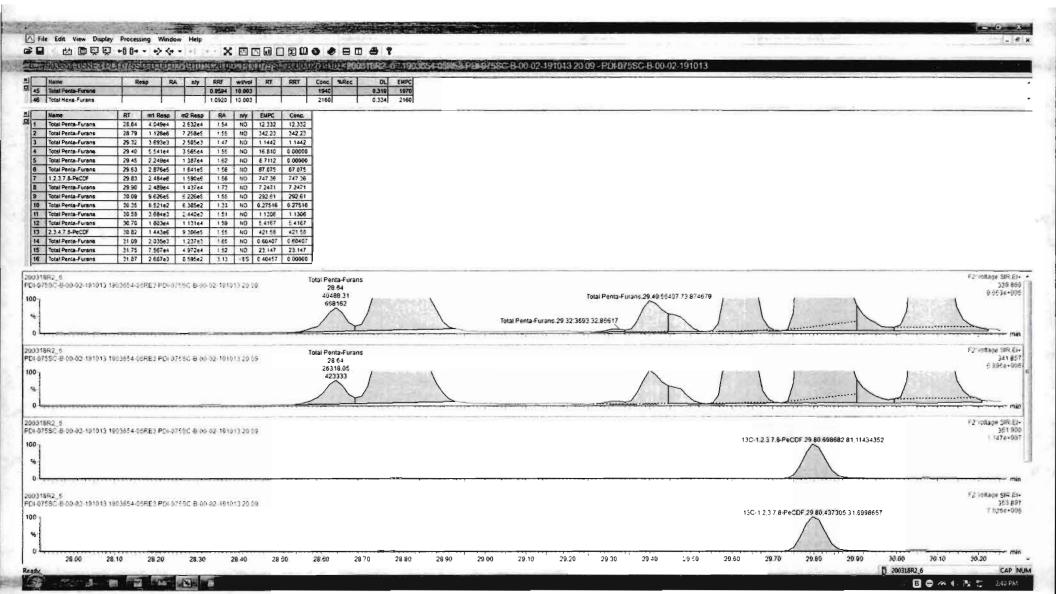
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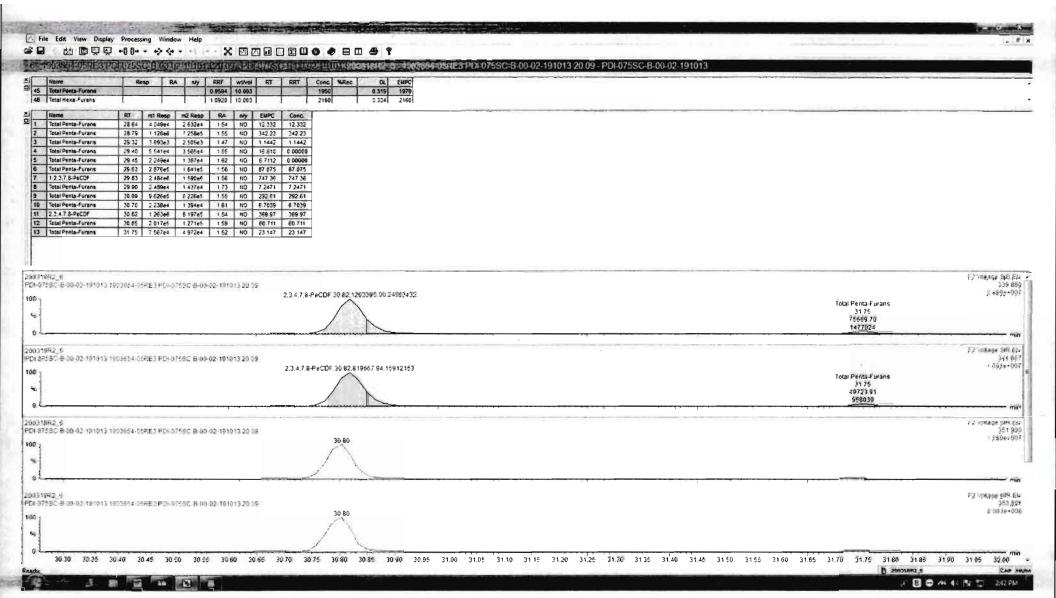
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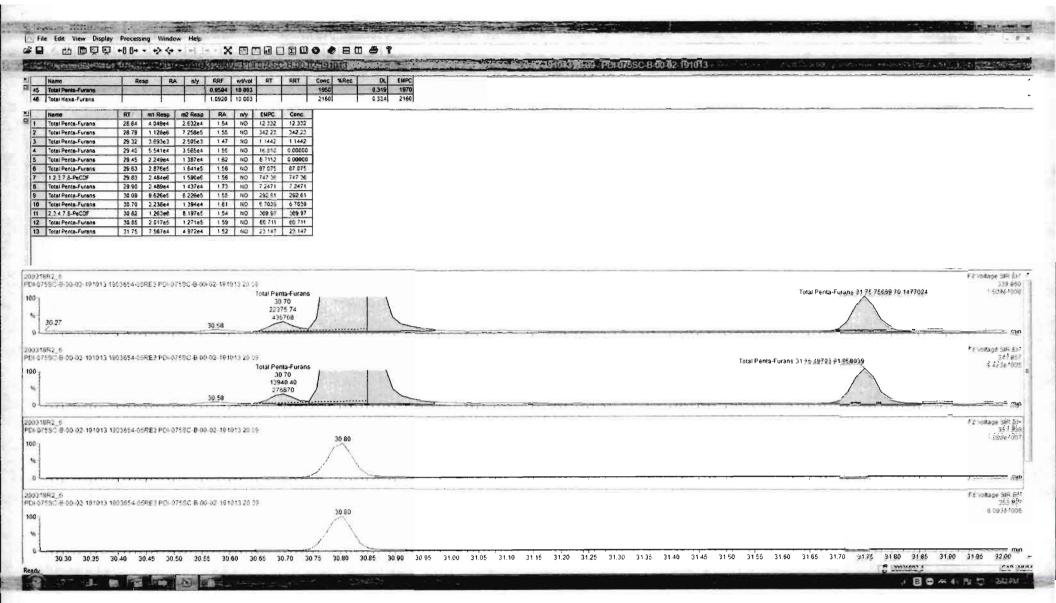
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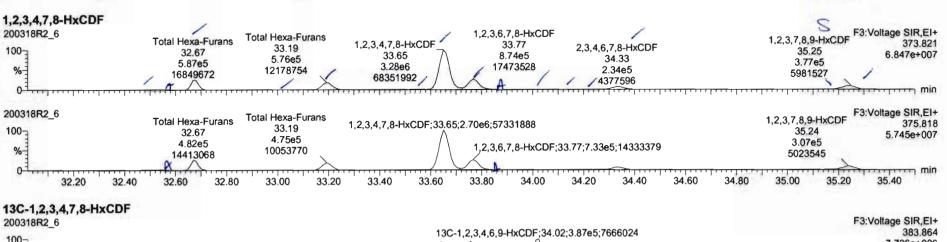
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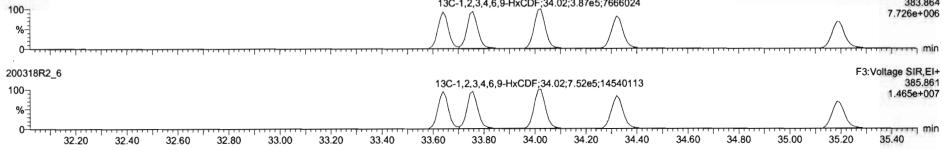


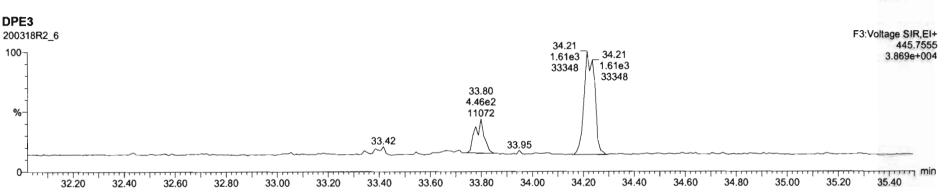


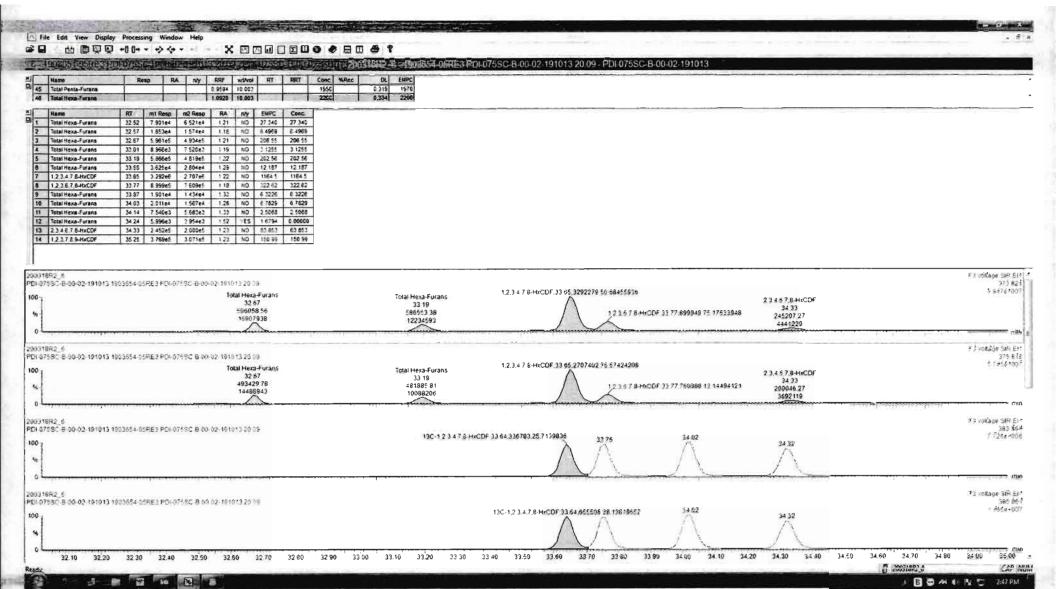
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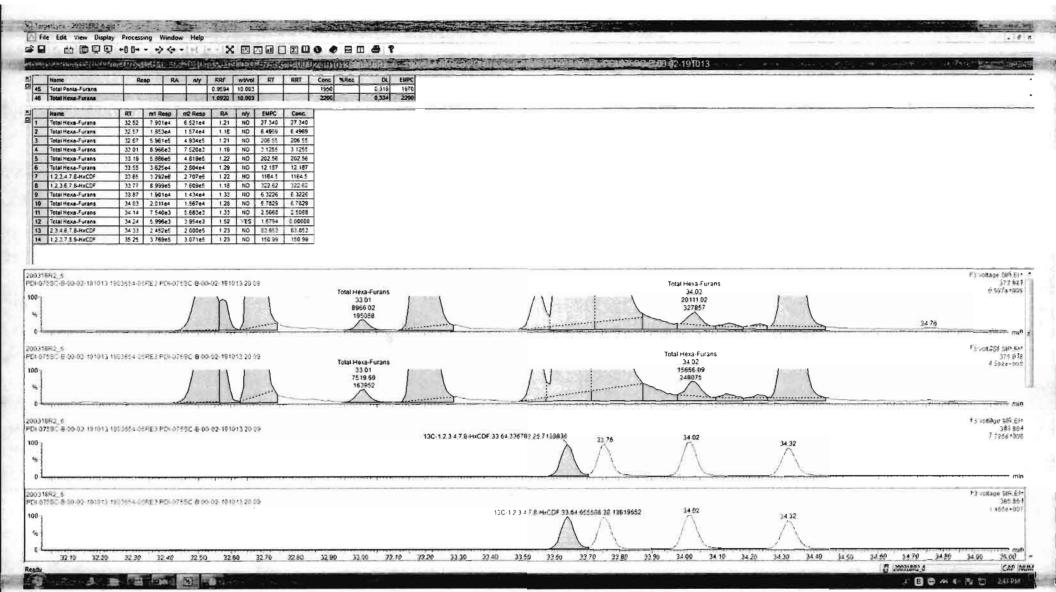




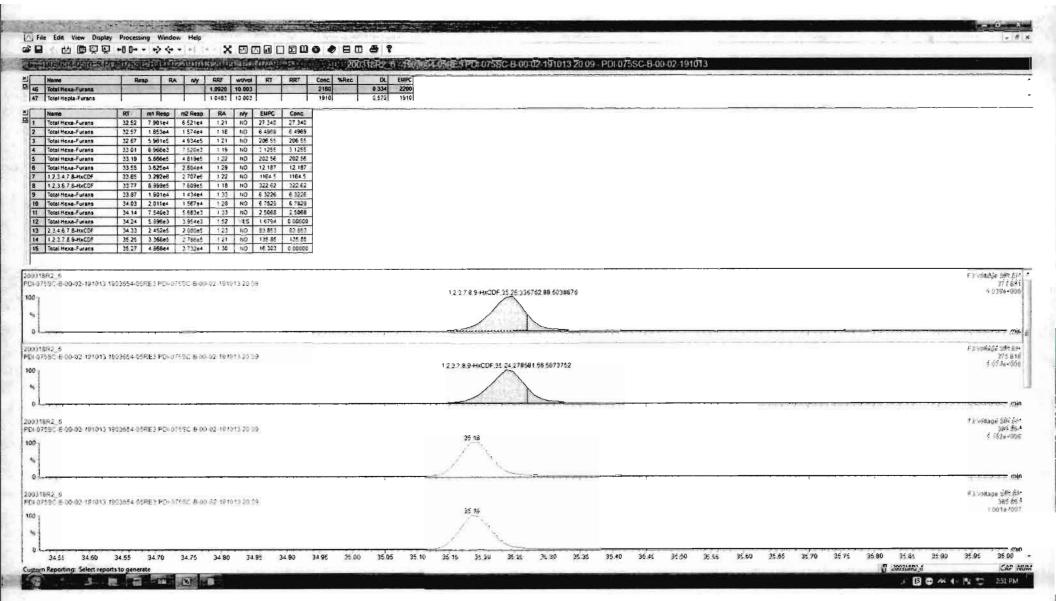




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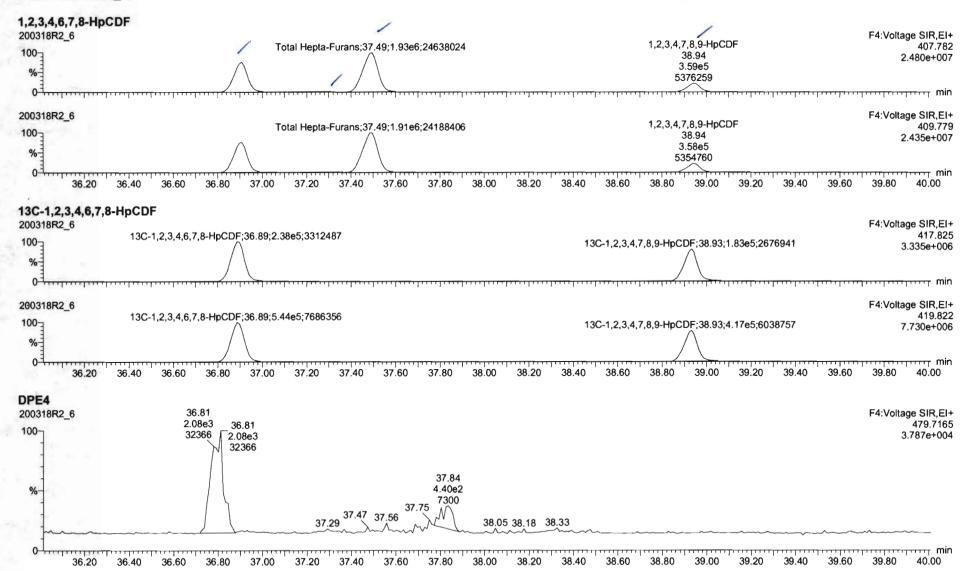
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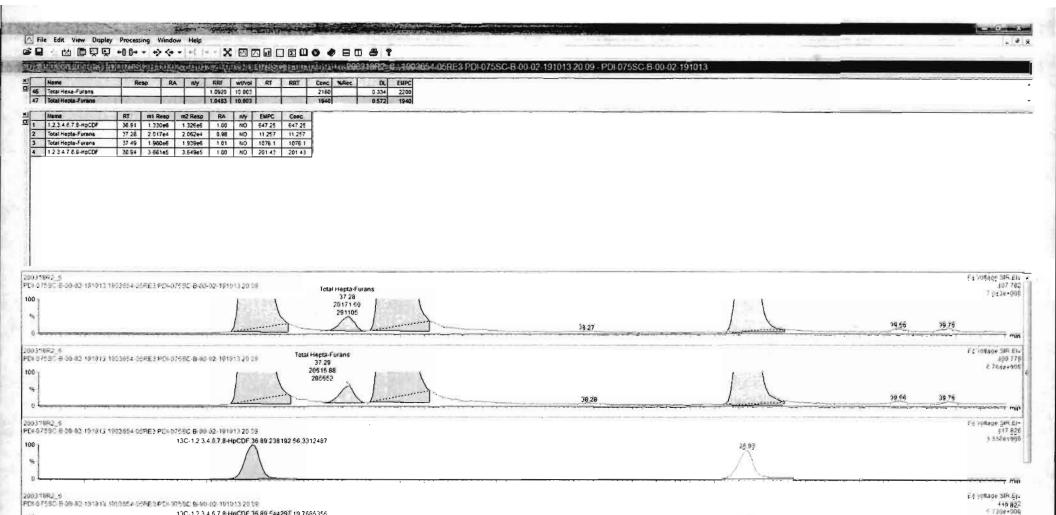


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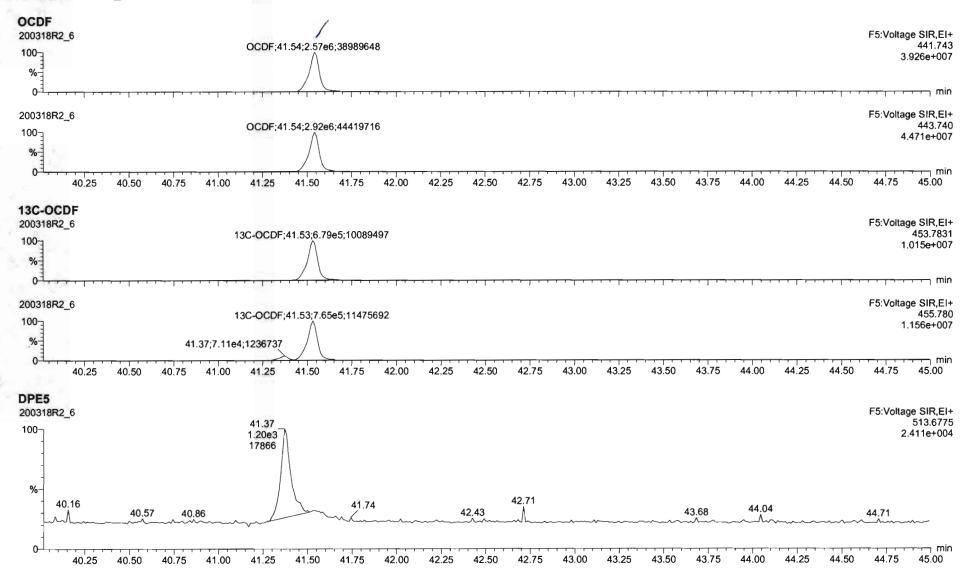
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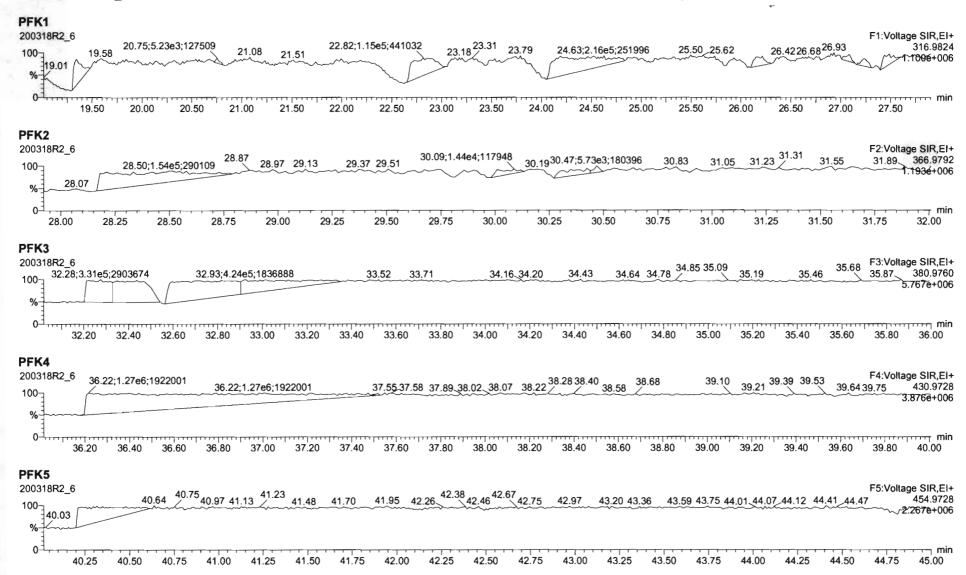
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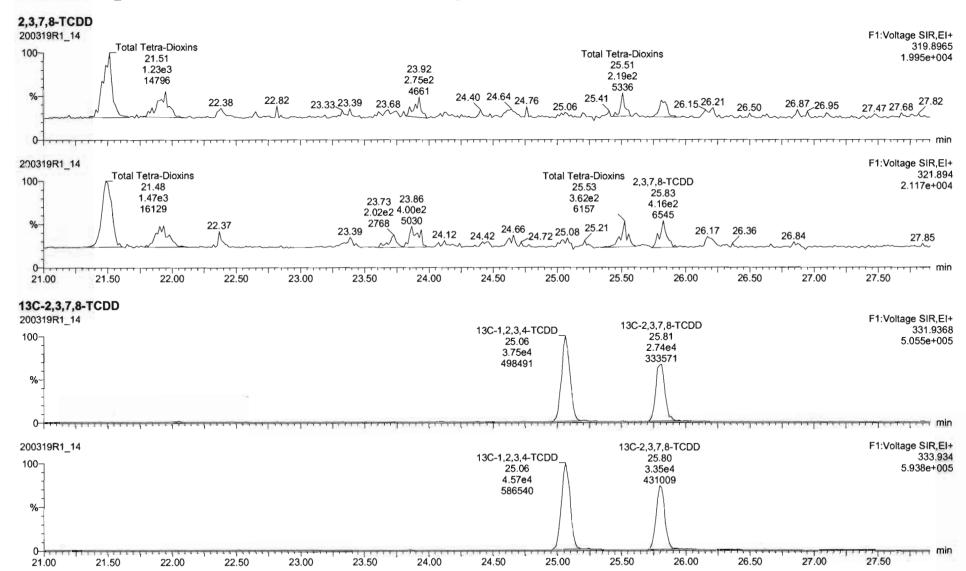
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2	24 13C-OCDD	6.05e4	0.89	NO	0.571	10.003	41.471	41.35	1.219	1.216	259.07	64.8	1.50]
3	35 37CI-2,3,7,8-TCDD	2.36e4			1.17	10.003	25.791	25.83	1.029	1.030	48.327	60.4	0.475	
4	36 13C-1,2,3,4-TCDD	8.32e4	0.82	NO	1.00	10.003	25.050	25.06	1.000	1.000	199.94	100	1.22	
5	37 13C-1,2,3,4-TCDF	1.48e5	0.80	NO	1.00	10.003	23.190	23.15	1.000	1.000	199.94	100	2.18	
6	38 13C-1,2,3,4,6,9-HxCDF	8.17e4	0.49	NO	1.00	10.003	33.880	34.01	1.000	1.000	199.94	100	1.34	

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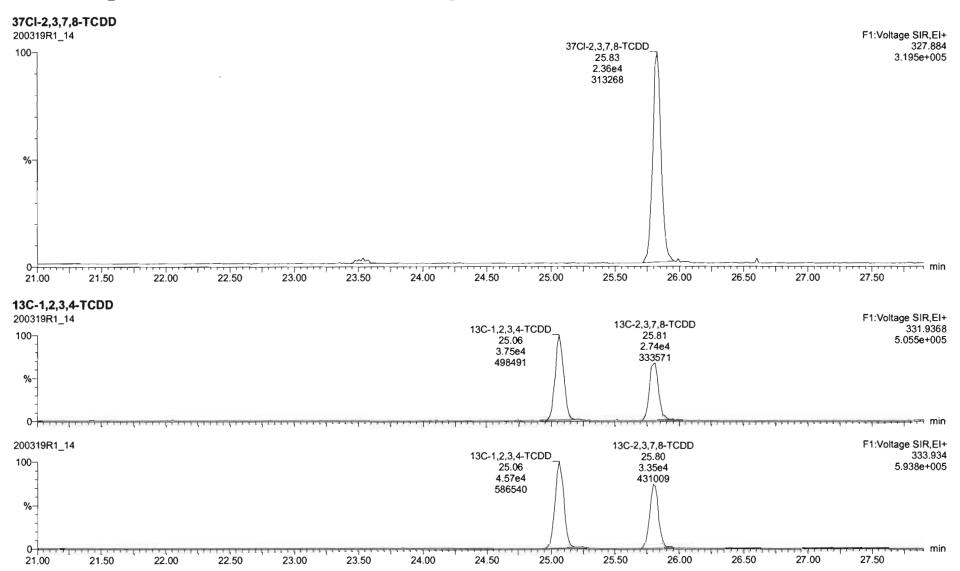
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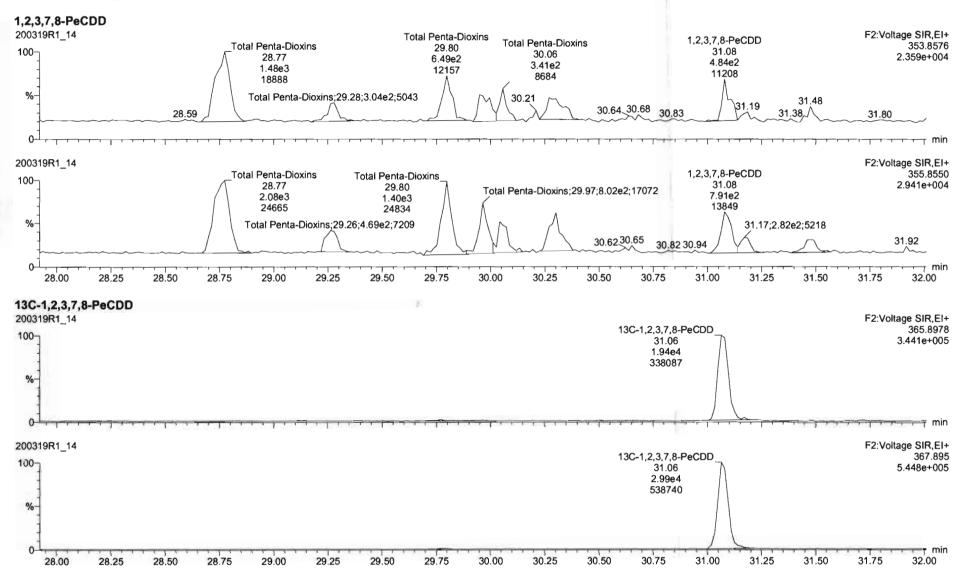
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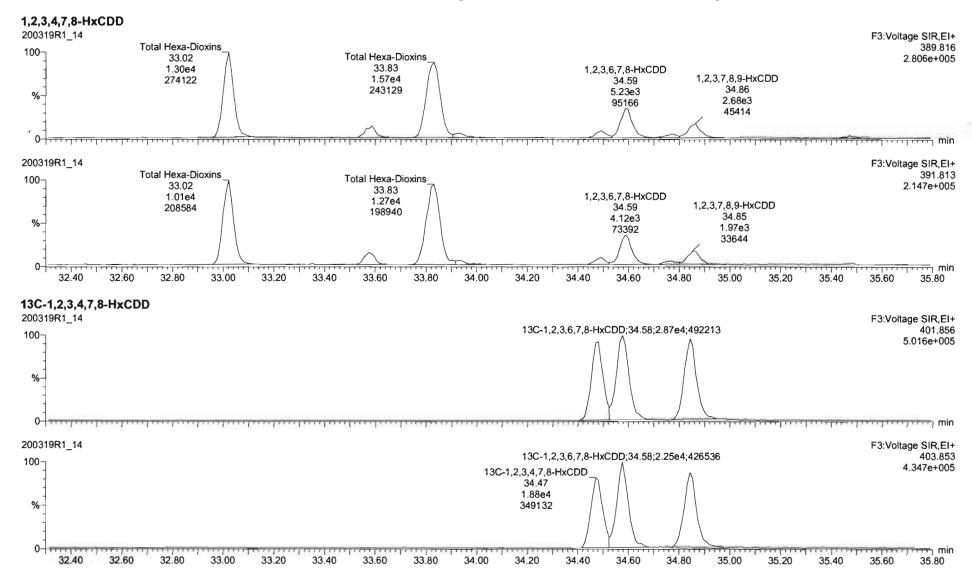
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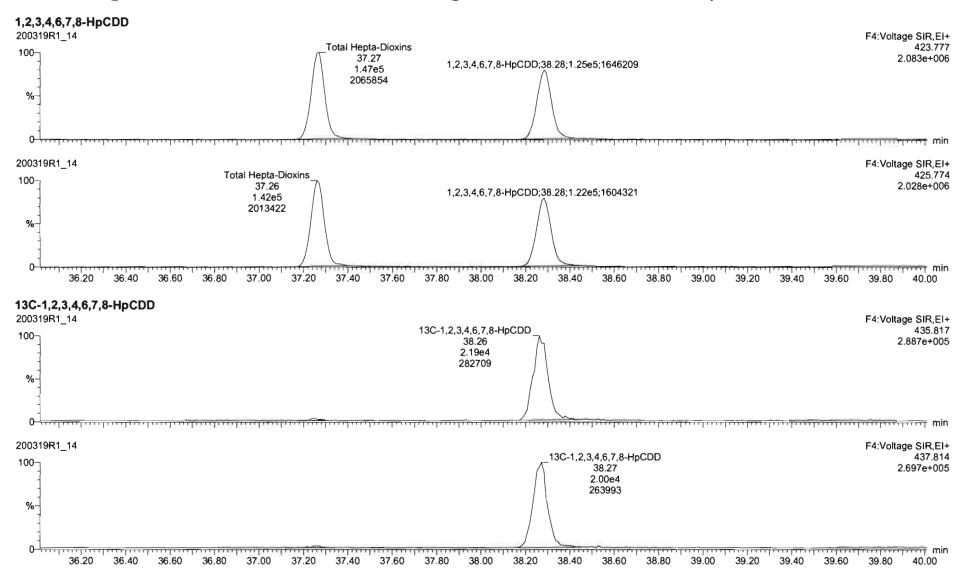
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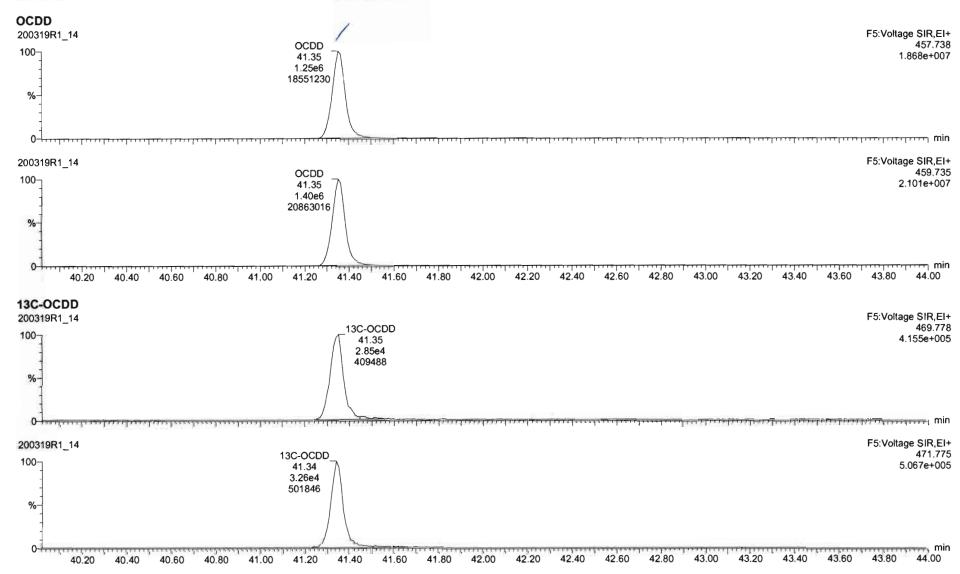
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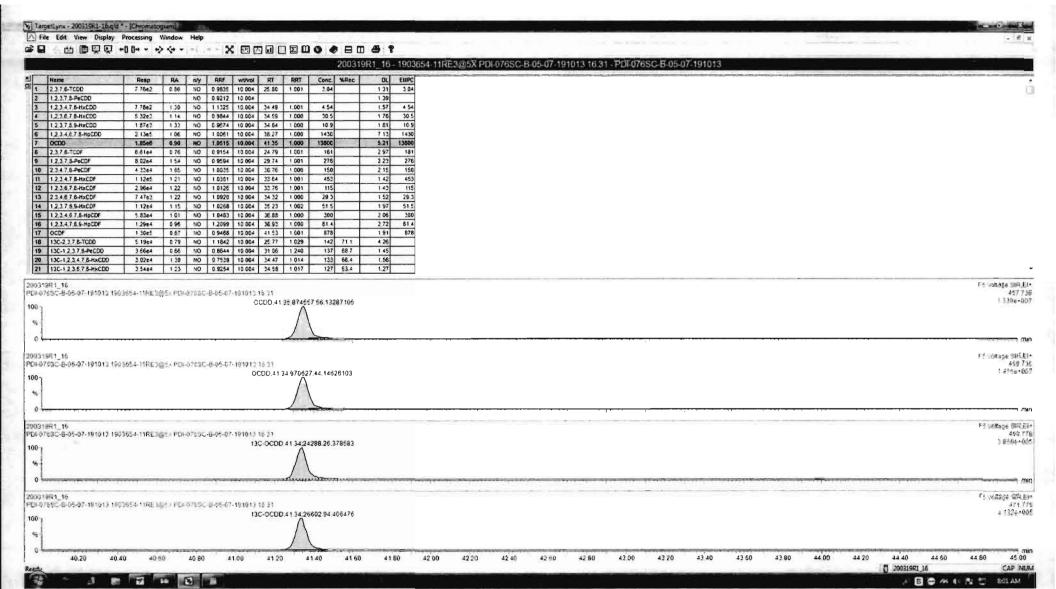
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Quantify Sample Report Vista Analytical Laboratory

MassLynx 4.1 SCN815

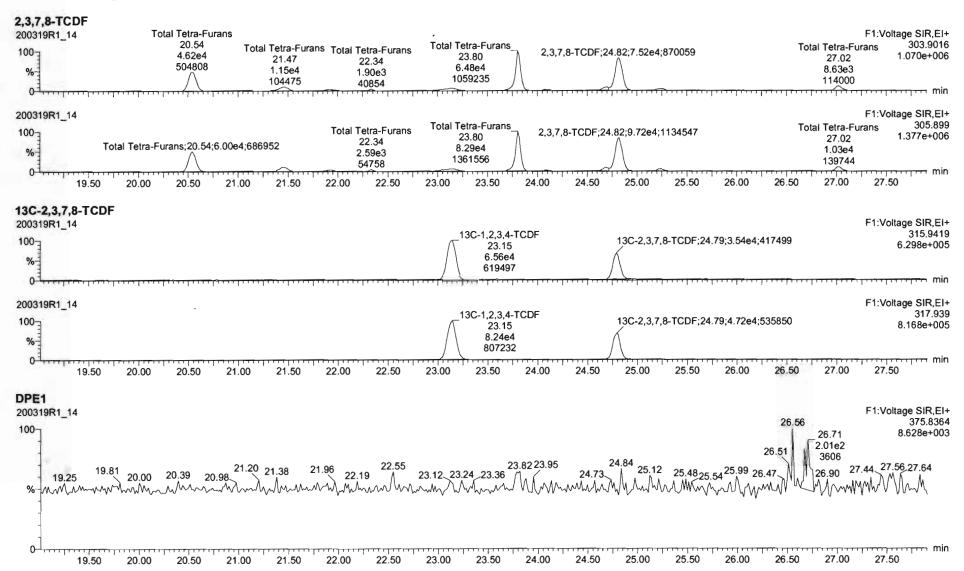
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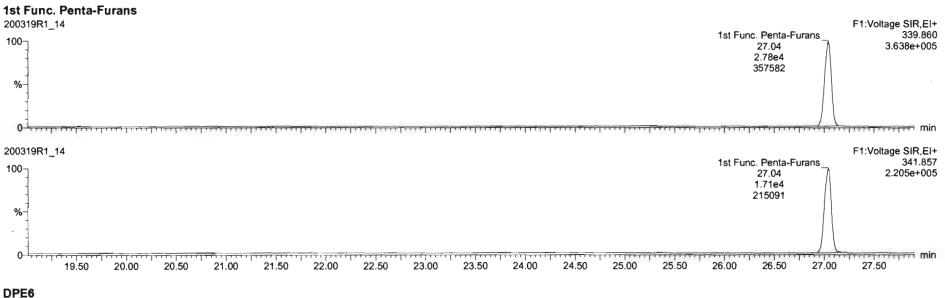
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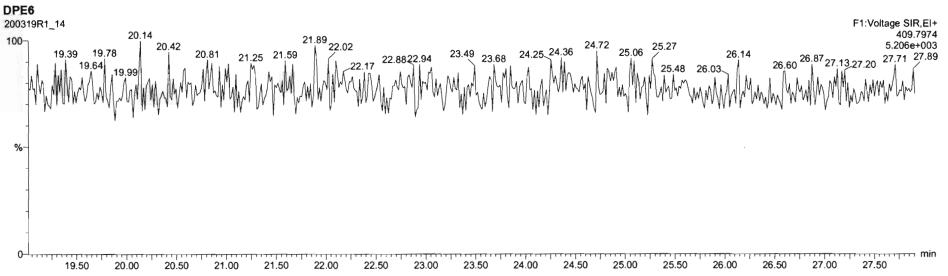


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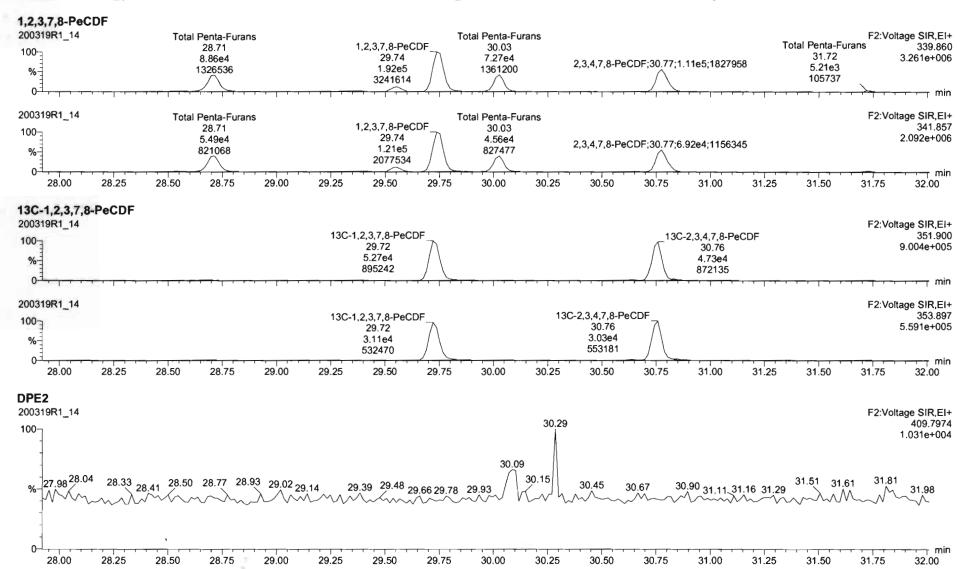
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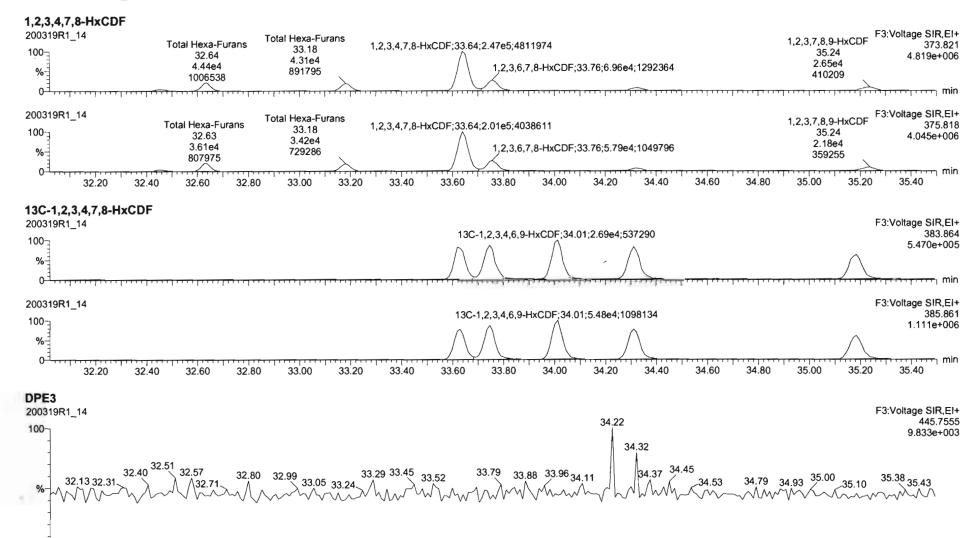
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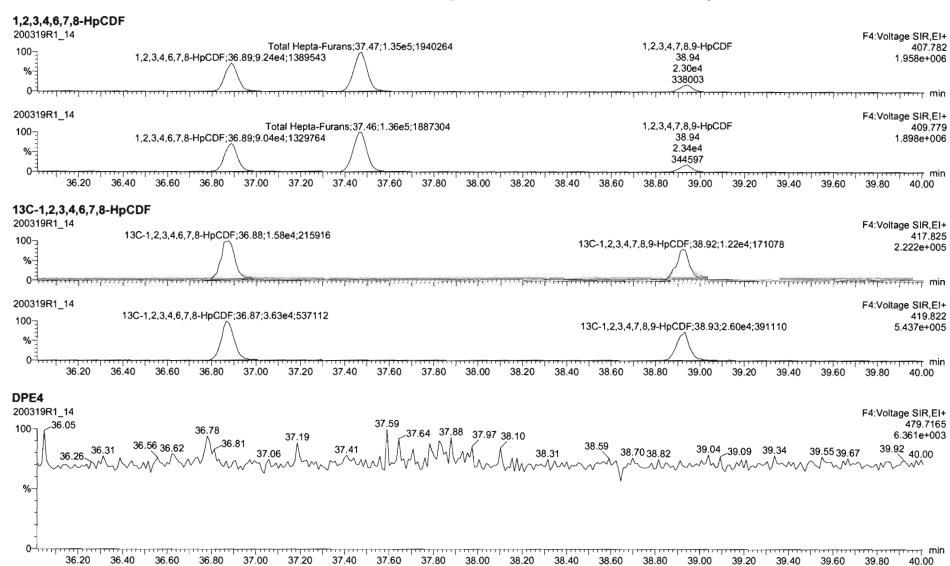
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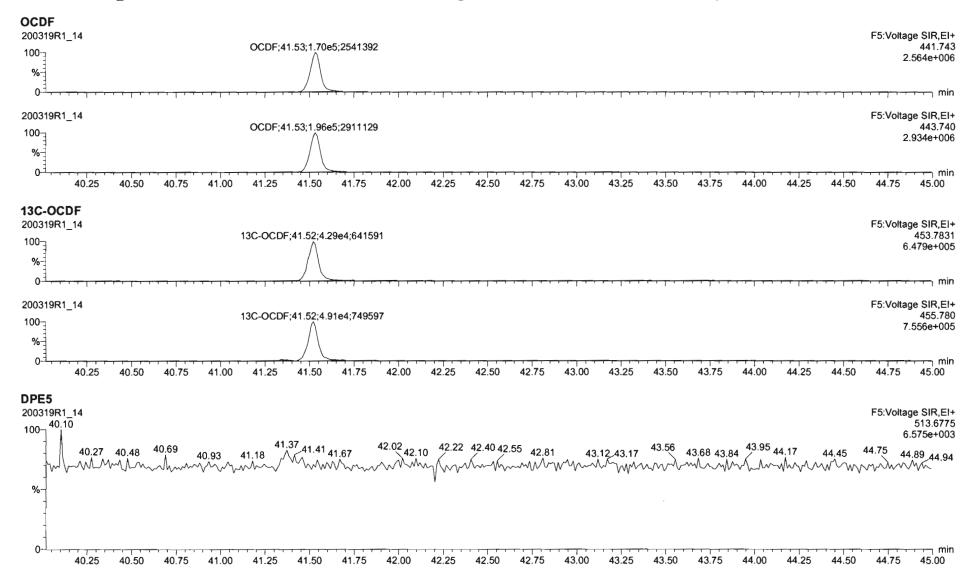
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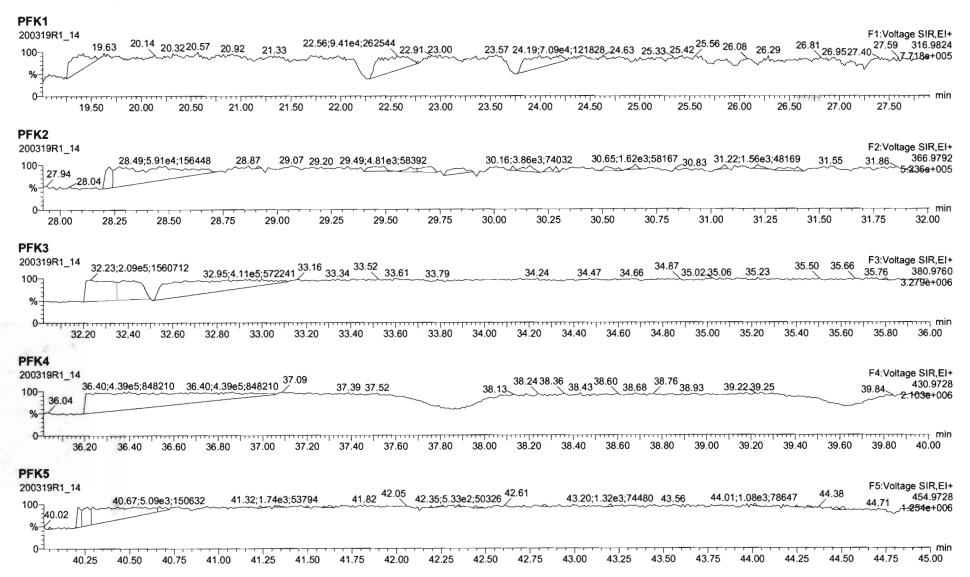


MassLynx 4.1 SCN815

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U:\VG12.PRO\Results\200202R1\200202R1-11.qld

Last Altered: Printed:

Tuesday, February 11, 2020 15:25:04 Pacific Standard Time Tuesday, February 11, 2020 15:29:40 Pacific Standard Time

GPB 02/11/2020 C1 03/13/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

AC A	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2.3,7,8-TCDD	5.58e3	0.65	YES	0.988	10.052	25.781	25.76	1.001	1.001	0.71/40		0.0951	0.643
2	2 1.2,3,7.8-PeCDD	7.65e3	0.61	NO	0.972	10.052	30.688	30.68	1.001	1.000	1.3051		0.363	1.30
3	3 1.2,3,4,7.8-HxCDD	7.74e3	1.41	NO	1.07	10.052	34.029	34.03	1.000	1.000	1.5577		0.234	1.56
4	4 1.2.3,6,7.8-HxCDD	4.45e4	1.24	NO	0.921	10.052	34.115	34.14	1.000	1.001	8.8870		0 242	8.89
5	5 1.2,3,7,8,9-HxCDD	1.77e4	1.24	NO	0.918	10.052	34.426	34 41	1.001	1.001	3.6443		0.262	3.64
6	6 1,2,3,4,6,7.8-HpCDD	1.19e6	1.01	NO	0.923	10.052	37.950	37.96	1.000	1.001	329.94		1.09	330
7	7 OCDD	1.09e7	0.89	NO	0.975	10.052	40.953	40.96	1.000	1.000	5086.5		0.694	5090
8	8 2,3,7,8-TCDF	1.09e6	0.75	NO	0.802	10.052	24.892	24.88	1.001	1.001	135.21	OK	0.144	135
9	9 1,2,3,7,8-PeCDF	2.48e6	1.53	NO	0.907	10.052	29.406	29.40	1.001	1.000	284.92		0.254	285
10	10 2,3,4,7,8-PeCDF	9.77e5	1.52	NO	0.952	10.052	30.392	30.38	1.001	1.000	123.39		0.237	123
11	11 1,2,3,4,7,8-HxCDF	2.70e6	1.17	NO	0.862	10.052	33.146	33.16	1.000	1.000	506.01		0.292	506
12	12 1,2,3,6,7,8-HxCDF	6.77e5	1.19	NO	0.841	10.052	33.273	33.28	1.000	1.001	128.43		0.310	128
13	13 2.3,4,6,7,8-HxCDF	1.49e5	1.21	NO	0.898	10.052	33.883	33.86	1.001	1.000	31.185		0.337	31.2
14	14 1,2,3.7.8,9-HxCDF	1.01e5	1.07	NO	0.858	10.052	34.754	34.80	1.000	1.001	21.941		0.405	21.9
15	15 1.2,3,4,6,7,8-HpCDF	6.13e5	0.97	NO	0.851	10 052	36.549	36.52	1.001	1.000	177.75		0.414	178
16	16 1.2,3,4.7,8,9-HpCDF	1.83e5	0.97	NO	0.980	10.052	38.525	38.53	1.000	1.000	63.760		0 415	63.8
17	17 OCDF	7.17e5	0.86	NO	0.806	10.052	41.134	41.15	1.000	1.000	305.50		0.293	305
18	18 13C-2.3,7,8-TCDD	1.58e6	0.78	NO	1.20	10.052	25.737	25.75	1.026	1.026	167.55	84.2	0.216	
19	19 13C-1.2,3,7.8-PeCDD	1.20e6	0.64	NO	0.967	10.052	30.487	30.67	1.215	1.222	157.67	79.2	0.353	
20	20 13C-1,2,3,4,7,8-HxCDD	9.24e5	1.27	NO	0.874	10.052	34.010	34.02	1 014	1 014	138.29	69.5	0.335	
21	21 13C-1,2,3,6,7.8-HxCDD	1.08e6	1.28	NO	1.05	10.052	34.110	34.12	1.017	1.017	135.29	68.0	0.280	
22	22 13C-1,2,3,7,8,9-HxCDD	1.05e6	1.24	NO	0.974	10.052	34.412	34.39	1.026	1.025	141.35	71.0	0.301	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.79e5	1.09	NO	0.747	10.052	37.967	37.94	1.132	1.131	136.38	68.5	0.323	
24	24 13C-OCDD	8.77e5	0.88	NO	0.707	10.052	40.852	40.95	1.218	1.221	162.42	40.8	0.204	
25	25 13C-2,3,7,8-TCDF	2.00e6	0.76	NO	1.07	10.052	24.916	24.87	0.993	0.991	163.25	82.0	0.309)
26	26 13C-1,2,3,7,8-PeCDF	1.91e6	1.57	NO	1.00	10.052	29.257	29.39	1.166	1.171	165.43	83.1	0.366	
27	27 13C-2,3,4,7,8-PeCDF	1.66e6	1.57	NO	0.962	10.052	30.211	30.36	1.204	1.210	149.58	75.2	0.381	
28	28 13C-1,2,3,4,7,8-HxCDF	1.23e6	0.51	NO	1.05	10.052	33.138	33.15	0.988	0.988	153.47	77.1	0.327	
29	29 13C-1,2,3,6,7,8-HxCDF	1.25e6	0.52	NO	1.19	10.052	33.238	33.26	0.991	0.992	137.10	68.9	0.288	
30	30 13C-2,3,4,6,7,8-HxCDF	1.06e6	0.51	NO	1.07	10.052	33.845	33.85	1.009	1.009	130.01	65.3	0.322	1
31	31 13C-1,2,3,7,8,9-HxCDF	1.06e6	0.50	NO	0.922	10.052	34.747	34.75	1.036	1.036	150.89	75.8	0.372	

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Last Altered: Printed: Tuesday, February 11, 2020 15:25:04 Pacific Standard Time Tuesday, February 11, 2020 15:29:40 Pacific Standard Time

Name: 200202R1_11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	8.06e5	0.44	NO	0.767	10.052	36.492	36.51	1.088	1.089	137.54	69.1	0.294	
33	33 13C-1.2.3,4.7,8,9-HpCDF	5.83e5	0.43	NO	0.552	10.052	38.504	38.53	1.148	1.149	138.04	69.4	0.409	
34	34 13C-OCDF	1.16e6	0.87	NO	0.789	10.052	41.087	41.13	1.225	1.226	192.19	48.3	0.148	
35	35 37CI-2,3,7,8-TCDD	6.33e5			1.18	10.052	25.769	25.76	1.027	1.027	68.393	85.9	0.0671	
36	36 13C-1,2,3,4-TCDD	1.57e6	0.81	NO	1.00	10.052	25.080	25.09	1.000	1.000	198.97	100	0.259	
37	37 13C-1,2,3,4-TCDF	2.29e6	0.79	NO	1.00	10.052	23.420	23.44	1.000	1.000	198.97	100	0.329	
38	38 13C-1,2,3,4,6,9-HxCDF	1.52e6	0.50	NO	1.00	10.052	33.520	33.54	1.000	1.000	198.97	100	0.343	
39	39 Total Tetra-Dioxins				0.988	10.052	24.620		0.000		10.004		0.0951	10.6
40	40 Total Penta-Dioxins				0.972	10.052	29.960		0.000		15.415		0.363	15.4
41	41 Total Hexa-Dioxins				0.921	10.052	33.635		0 000		92.864		0.257	92.9
42	42 Total Hepta-Dioxins				0.923	10.052	37.640		0.000		870.79		1.09	871
43	43 Total Tetra-Furans				0.802	10.052	23.610		0.000		392.08		0.144	430
44	44 1st Func. Penta-Furans				0.907	10.052	27.090		0.000		31.031		0.0500	31.0
45	45 Total Penta-Furans				0.907	10.052	29.275		0.000		717.28		0.251	717
46	46 Total Hexa-Furans				0.898	10.052	33.555		0.000		873.26		0.321	873
47	47 Total Hepta-Furans				0.851	10.052	37.835		0.000		460.70		0.441	461

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Name: 200202R1_11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

Tetra-Dioxins

3-00	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.83	1.886e5	2.037e5	1.676e4	2.001e4	0.84	NO	3.677e4	4.6873	4.6870	0.0951
2	Total Tetra-Dioxins	22.25	4.309e4	6.090e4	4.327e3	5.673e3	0.76	NO	1.000e4	1.2747	1.2750	0.0951
3	Total Tetra-Dioxins	22.76	1.643e4	2.051e4	1.184e3	1.534e3	0.77	NO	2 718e3	0.34647	0.34600	0.0951
4	Total Tetra-Dioxins	23.61	1.301e4	1.533e4	1 0 44e 3	1.194e3	0.88	NO	2.238e3	0.28533	0.28500	0.0951
5	Total Tetra-Dioxins	23.86	2.256e4	3.070e4	2.095e3	2.712e3	0.77	NO	4.808e3	0.61288	0.61300	0.0951
6	Total Tetra-Dioxins	24.06	3.041e4	3.653e4	2.290e3	2.911e3	0.79	NO	5.201e3	0.66297	0.66300	0.0951
7	Total Tetra-Dioxins	24.28	9.694e3	1.047e4	7.822e2	9.270e2	0.84	NO	1.709e3	0.21789	0.21800	0.0951
8	Total Tetra-Dioxins	24.54	6.135e3	9.542e3	5.022e2	7.536e2	0.67	NO	1.256e3	0.16009	0.16000	0.0951
9	Total Tetra-Dioxins	24.72	1.206e4	1.738e4	8.875e2	1.148e3	0.77	NO	2.035e3	0.25944	0.25900	0.0951
10	Total Tetra-Dioxins	25.09	7.349e3	8.854e3	6.371e2	7.933e2	0.80	NO	1.430e3	0.18234	0.18200	0.0951
11	Total Tetra-Dioxins	25.50	3.430e4	3.993e4	2.776e3	3.362e3	0.83	NO	6.138e3	0.78247	0.78200	0.0951
12	2,3.7.8-TCDD	25.76	3.148e4	5.095e4	2.193e3	3.387e3	0.65	YES	5.581e3	0.00000	0.64300	0.0951
13	Total Tetra-Dioxins	26.08	1.567e4	2.199e4	1.024e3	1.461e3	0.70	NO	2.485e3	0.31679	0.31700	0.0951
14	Total Tetra-Dioxins	26.21	4.808e3	5.108e3	2.526e2	3.199e2	0.79	NO	5.726e2	0.072990	0.073000	0.0951
15	Total Tetra-Dioxins	26.71	7.300e3	9.868e3	5.220e2	5.967e2	0.88	NO	1 119e3	0.14260	0.14300	0.0951

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.47	1.283e5	2.253e5	1.021e4	1.658e4	0.62	NO	2.680e4	4.5735	4.5740	0.363
2	Total Penta-Dioxins	28.96	3.890e4	5.852e4	2.060e3	3.339e3	0.62	NO	5.399e3	0.92151	0.92200	0.363
3	Total Penta-Dioxins	29.45	1.195e5	2.001e5	6.407e3	1.063e4	0.60	NO	1.704e4	2.9084	2.9080	0.363
4	Total Penta-Dioxins	29.61	6.557e4	1.061e5	2.838e3	4.993e3	0.57	NO	7.831e3	1.3366	1.3370	0.363
5	Total Penta-Dioxins	29.71	4.024e4	6.878e4	2.046e3	3.603e3	0.57	NO	5.649e3	0.96417	0.96400	0.363
6	Total Penta-Dioxins	29.92	4.992e4	9.005e4	4.589e3	7.786e3	0.59	NO	1.238e4	2.1123	2.1120	0.363
7	Total Penta-Dioxins	30.25	1.540e4	2.107e4	6.958e2	1.075e3	0.65	NO	1.771e3	0.30220	0.30200	0.363
8	1,2,3,7,8-PeCDD	30.68	6.110e4	8.441e4	2.903e3	4.743e3	0.61	NO	7.646e3	1.3051	1.3050	0.363
9	Total Penta-Dioxins	30.76	1.801e4	3.117e4	1.047e3	1.589e3	0.66	NO	2.635e3	0.44980	0.45000	0.363
10	Total Penta-Dioxins	31.06	2.291e4	3.660e4	1.331e3	1.842e3	0.72	NO	3.174e3	0.54170	0.54200	0.363

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Name: 200202R1_11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

Hexa-Dioxins

120	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.54	2.123e6	1.743e6	9.975e4	8.193e4	1.22	NO	1.817e5	38.507	38.507	0.257
2	Total Hexa-Dioxins	33.09	2.590e5	1.959e5	1.218e4	9.899e3	1.23	NO	2.208e4	4.6808	4.6810	0.257
3	Total Hexa-Dioxins	33.35	1.279e6	1.025e6	8.530e4	6.989e4	1.22	NO	1.552e5	32.894	32.894	0.257
4	Total Hexa-Dioxins	33.46	7.552e4	6.038e4	4.074e3	3.102e3	1.31	NO	7.176e3	1.5210	1.5210	0.257
5	1,2,3,4,7,8-HxCDD	34.03	8.902e4	6.594e4	4.535e3	3.208e3	1.41	NO	7.742e3	1.5577	1.5580	0.234
6	1,2,3,6,7,8-HxCDD	34.14	4.403e5	3.723e5	2.459e4	1.990e4	1.24	NO	4.448e4	8.8870	8.8870	0.242
7	Total Hexa-Dioxins	34.32	5.637e4	5.065e4	3.074e3	2.456e3	1.25	NO	5.530e3	1.1721	1.1720	0.257
8	1,2,3,7,8,9-HxCDD	34.41	1.695e5	1.230e5	9.796e3	7.904e3	1.24	NO	1.770e4	3.6443	3.6440	0.262

Hepta-Dioxins

取集引	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.92	1.402e7	1.366e7	9.839e5	9.701e5	1.01	NO	1.954e6	540.85	540.85	1.09
2	1,2,3,4,6,7,8-HpCDD	37.96	9.015e6	8.914e6	5.983e5	5.938e5	1.01	NO	1.192e6	329.94	329.94	1.09

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Last Altered: Printed:

Tuesday, February 11, 2020 15:25:04 Pacific Standard Time Tuesday, February 11, 2020 15:29:40 Pacific Standard Time

Name: 200202R1_11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

Tetra-Furans

JABI B	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.72	2.567e4	2.684e4	1.725e3	2.441e3	0.71	NO	4.166e3	0.51658	0.51700	0.144
2	Total Tetra-Furans	20.24	8.337e4	1.014e5	6.920e3	8.955e3	0.77	NO	1.587e4	1.9685	1.9680	0.144
3	Total Tetra-Furans	20.84	3.266e5	4.366e5	2.847e4	3.831e4	0.74	NO	6.678e4	8.2809	8.2810	0.144
4	Total Tetra-Furans	21.41	1.575e5	2.119e5	2.506e4	3.368e4	0.74	NO	5.874e4	7.2835	7.2840	0.144
5	Total Tetra-Furans	21.72	1.990e5	2.872e5	8.017e3	1.151e4	0.70	NO	1.953e4	2.4215	2.4220	0.144
6	Total Tetra-Furans	21.80	1.179e6	1.601e6	1.179e5	1.567e5	0.75	NO	2.746e5	34.051	34.051	0.144
7	Total Tetra-Furans	22.28	4.973e5	6.256e5	4.563e4	5.973e4	0.76	NO	1.054e5	13.065	13.065	0.144
8	Total Tetra-Furans	22.46	4.244e4	5.547e4	3.797e3	4.710e3	0.81	NO	8.507e3	1.0549	1.0550	0.144
9	Total Tetra-Furans	22.65	3.460e5	4.507e5	2.811e4	3.738e4	0.75	NO	6.549e4	8.1204	8.1200	0.144
10	Total Tetra-Furans	23.06	6.093e4	9.572e4	5.694e3	7.742e3	0.74	NO	1.344e4	1.6661	1.6660	0.144
11	Total Tetra-Furans	23.19	2.299e4	3.839e4	1.728e3	2.487e3	0.69	NO	4.216e3	0.52277	0.52300	0.144
12	Total Tetra-Furans	23.40	2.900e5	4.003e5	2.377e4	3.291e4	0.72	NO	0.000e0	0.00000	7.0280	0.144
13	Total Tetra-Furans	23.44	5.793e5	7.743e5	4.947e4	6.567e4	0.75	NO	0.000e0	0.00000	14.276	0.144
14	Total Tetra-Furans	23.95	6.379e6	8.517e6	5.027e5	6.734e5	0.75	NO	1.176e6	145.84	145.84	0.144
15	Total Tetra-Furans	24.07	6.476e4	7.868e4	3.268e3	3.889e3	0.84	NO	7.158e3	0.88754	0.88800	0.144
16	Total Tetra-Furans	24.24	2.400e5	3.189e5	2.019e4	2.626e4	0.77	NO	4.645e4	5.7601	5.7600	0.144
17	Total Tetra-Furans	24.46	2.216e4	2.938e4	2.581e3	3.435e3	0.75	NO	6.016e3	0.74592	0.74600	0.144
18	Total Tetra-Furans	24.67	8.502e4	1.196e5	6.278e3	8.559e3	0.73	NO	1.484e4	1.8399	1.8400	0.144
19	Total Tetra-Furans	24.78	7.054e5	9.351e5	4.691e4	6.404e4	0.73	NO	1.110e5	13.758	13.758	0.144
20	2,3,7,8-TCDF	24.88	6.205e6	8.419e6	4.656e5	6.248e5	0.75	NO	1.090e6	135.21	135.21	0.144
21	Total Tetra-Furans	25.03	4.526e4	5.629e4	3.713e3	5.430e3	0.68	NO	9.142e3	1.1336	1.1340	0.144
22	Total Tetra-Furans	25.26	2.928e5	3.886e5	2.110e4	2.862e4	0.74	NO	4.972e4	6.1649	6.1650	0.144
23	Total Tetra-Furans	25.50	7.286e4	1.042e5	5.367e3	7.477e3	0.72	NO	1.284e4	1.5927	1.5930	0.144
24	Total Tetra-Furans	26.30	1.015e4	7.863e3	6.360e2	5.145e2	1.24	YES	0.000e0	0.00000	0.11300	0.144
25	Total Tetra-Furans	26.39	9.844e3	1.319e4	6.869e2	9.303e2	0.74	NO	1.617e3	0.20054	0.20100	0.144
26	Total Tetra-Furans	26.56	1.959e4	1.410e4	1.334e3	8.554e2	1.56	YES	0.000e0	0.00000	0.18800	0.144
27	Total Tetra-Furans	26.86	9.908e5	1.123e6	6.419e4	7.248e4	0.89	YES	0.000e0	0.00000	15.909	0.144

Penta-Furans function 1

G. Act. W	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	26.86	2.493e6	1.522e6	1.554e5	9.656e4	1.61	NO	2.520e5	31.031	31.031	0.0500

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-11.qld

Last Altered: Printed: Tuesday, February 11, 2020 15:25:04 Pacific Standard Time Tuesday, February 11, 2020 15:29:40 Pacific Standard Time

Name: 200202R1_11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

Penta-Furans

39.39	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.29	3.109e5	1.823e5	1.791e4	1.128e4	1.59	NO	2.920e4	3.5951	3.5950	0.251
2	Total Penta-Furans	28.42	1.206e7	7.878e6	6.996e5	4.586e5	1.52	NO	1.158e6	142.63	142.63	0.251
3	Total Penta-Furans	28.50	5.647e5	3.569e5	1.698e4	1.108e4	1.53	NO	2.806e4	3.4553	3.4550	0.251
4	Total Penta-Furans	29.00	4.167e5	2.806e5	2.882e4	1.824e4	1.58	NO	4.706e4	5.7946	5.7950	0.251
5	Total Penta-Furans	29.08	3.131e5	2.054e5	1.660e4	1.064e4	1.56	NO	2.724e4	3.3547	3.3550	0.251
6	Total Penta-Furans	29.22	2.461e6	1.568e6	1.330e5	8.649e4	1.54	NO	2.194e5	27.022	27.022	0.251
7	1,2,3,7.8-PeCDF	29.40	2.561e7	1.700e7	1.500e6	9.772e5	1.53	NO	2.477e6	284.92	284.92	0.254
8	Total Penta-Furans	29.49	4.411e5	3.199e5	1.754e4	1.232e4	1.42	NO	2.985e4	3.6762	3.6760	0.251
9	Total Penta-Furans	29.67	9.472e6	6.145e6	4.685e5	3.066e5	1.53	NO	7.751e5	95.438	95.438	0.251
10	Total Penta-Furans	30.16	5.148e4	2.978e4	2.930e3	1.672e3	1.75	NO	4.602e3	0.56667	0.56700	0.251
11	Total Penta-Furans	30.27	1.520e5	9.316e4	8.180e3	4.664e3	1.75	NO	1.284e4	1.5816	1.5820	0.251
12	2,3.4.7,8-PeCDF	30.38	1.013e7	6.688e6	5.886e5	3.881e5	1.52	NO	9.767e5	123.39	123.39	0.237
13	Total Penta-Furans	30.42	3.881e6	2.417e6	7.814e4	4.789 e4	1.63	NO	1.260e5	15.520	15.520	0.251
14	Total Penta-Furans	31.31	6.192e5	3.907e5	3.151e4	1.996e4	1.58	NO	5.148e4	6.3386	6.3390	0.251

Hexa-Furans

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 91	Total Hexa-Furans	32.00	9.090e5	7.860e5	4.319e4	3.674e4	1.18	NO	7.992e4	15.395	15.395	0.321
2	Total Hexa-Furans	32.17	4.236e6	3.594e6	1.966e5	1.689e5	1.16	NO	3.655e5	70.406	70.406	0.321
3	Total Hexa-Furans	32.52	6.794e4	5.775e4	2.980e3	2.730e3	1.09	NO	5.710e3	1.0999	1.1000	0.321
4	Total Hexa-Furans	32.70	3.839e6	3.268e6	1.774e5	1.495e5	1.19	NO	3.269e5	62.966	62.966	0.321
5	Total Hexa-Furans	33.06	2.555e5	2.306e5	1.062e4	9.420e3	1.13	NO	2.004e4	3.8607	3.8610	0.321
6	1,2,3,4,7,8-HxCDF	33.16	2.848e7	2.472e7	1.456e6	1.242e6	1.17	NO	2.698e6	506.01	506.01	0.292
7	1.2,3,6,7,8-HxCDF	33.28	7.140e6	5.875e6	3.678e5	3.092e5	1.19	NO	6.770e5	128.43	128.43	0.310
8	Total Hexa-Furans	33.56	9.084e4	8.421e4	4.683e3	3.955e3	1.18	NO	8.638e3	1.6639	1.6640	0.321
9	2,3,4,6,7,8-HxCDF	33.86	1.534e6	1.310e6	8.167e4	6.746e4	1.21	NO	1.491e5	31.185	31.185	0.337
10	1,2,3,7,8,9-HxCDF	34.80	2.015e6	1.752e6	5.189 e4	4.871e4	1.07	NO	1.006e5	21.941	21.941	0.405
11	Total Hexa-Furans	34.81	2.220e6	1.877e6	8.507e4	7.225e4	1.18	NO	1.573e5	30.303	30.303	0.321

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-11.qld

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Tuesday, February 11, 2020 15:25:04 Pacific Standard Time

Printed:

Tuesday, February 11, 2020 15:29:40 Pacific Standard Time

Name: 200202R1_11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

Hepta-Furans

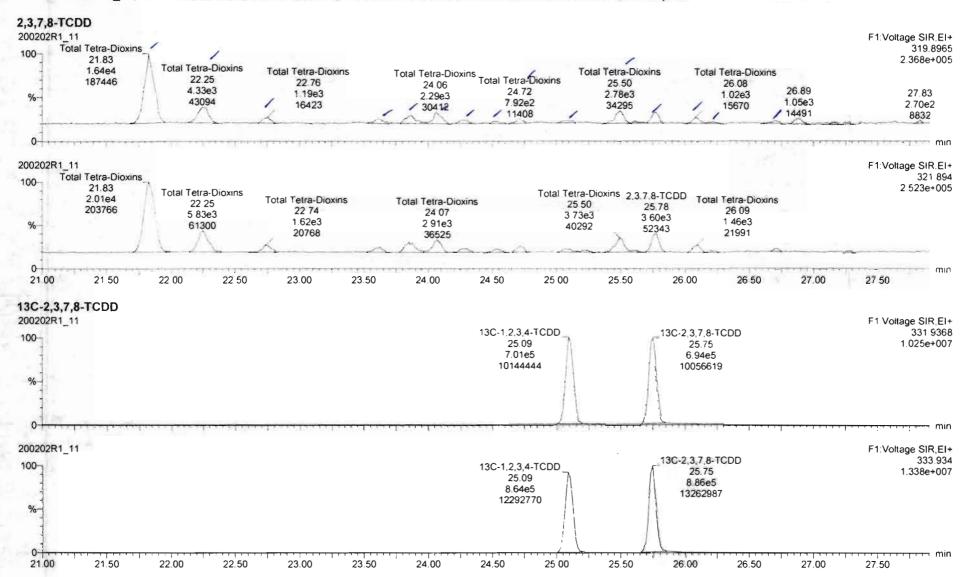
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1	1,2,3,4,6,7,8-HpCDF	36.52	4.619e6	4.734e6	3.016e5	3.115e5	0.97	NO	6.131e5	177.75	177.75	0.414
2	Total Hepta-Furans	36.92	7.818e4	8.342e4	5.107e3	5.232e3	0.98	NO	1.034e4	3.4804	3.4800	0.441
3	Total Hepta-Furans	37.13	4.540e6	4.703e6	3.160e5	3.248e5	0.97	NO	6.408e5	215.71	215.71	0.441
4	1,2,3,4,7.8,9-HpCDF	38.53	1.612e6	1.648e6	9.019e4	9. 277e4	0.97	NO	1.830e5	63.760	63.760	0.415

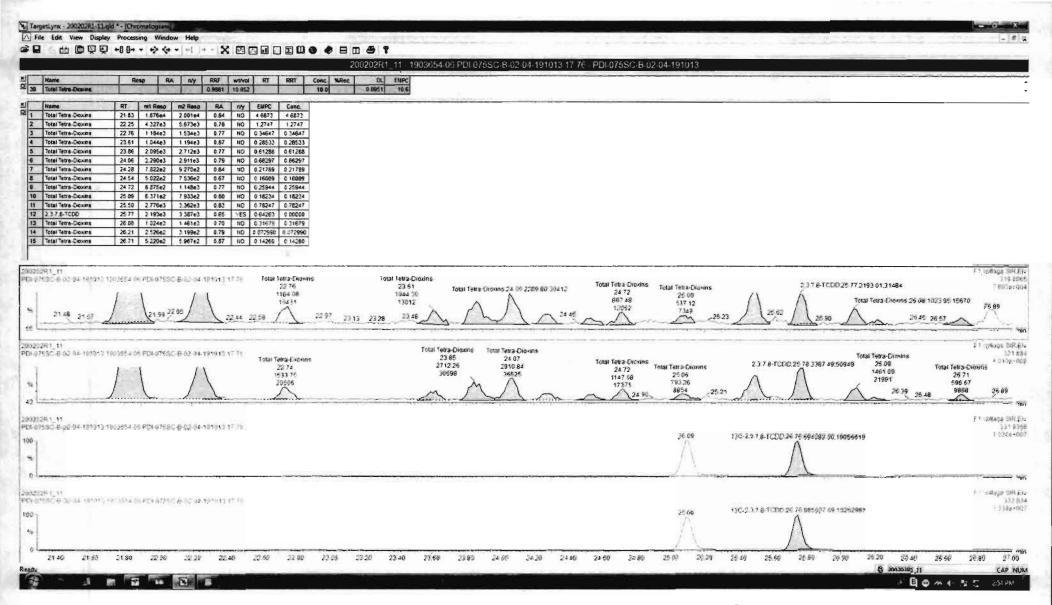
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Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

Name: 200202R1 11, Date: 02-Feb-2020, Time: 18:13:46, ID: 1903654-06 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013



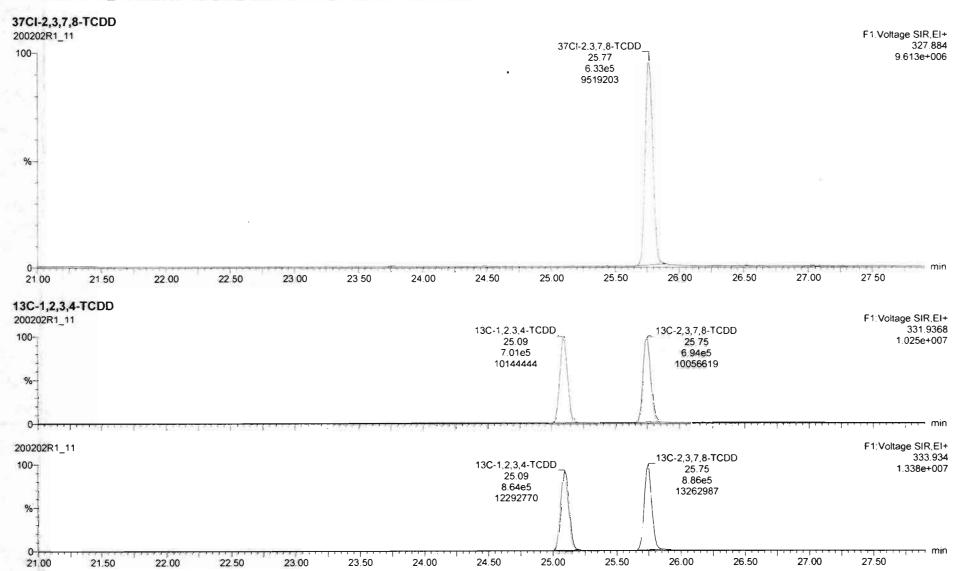


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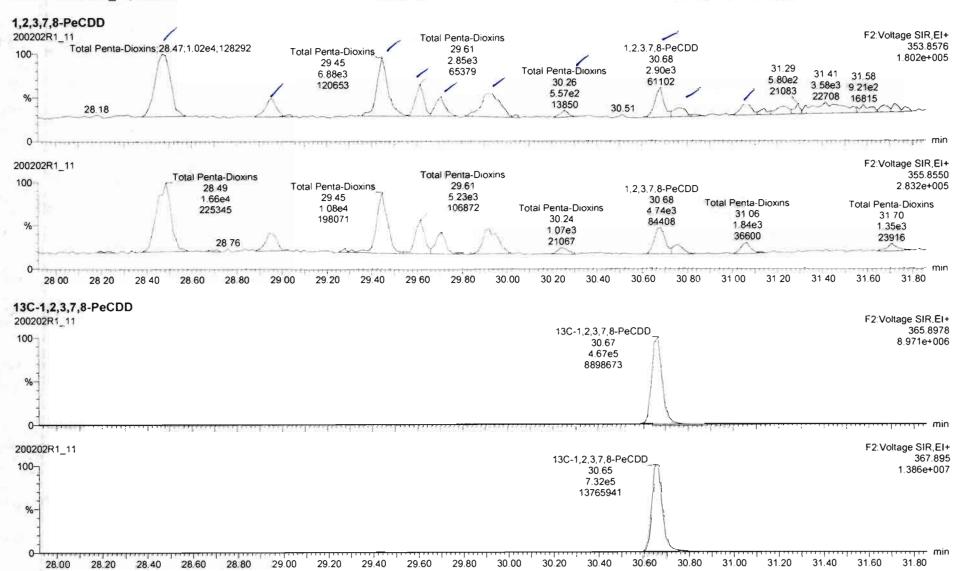
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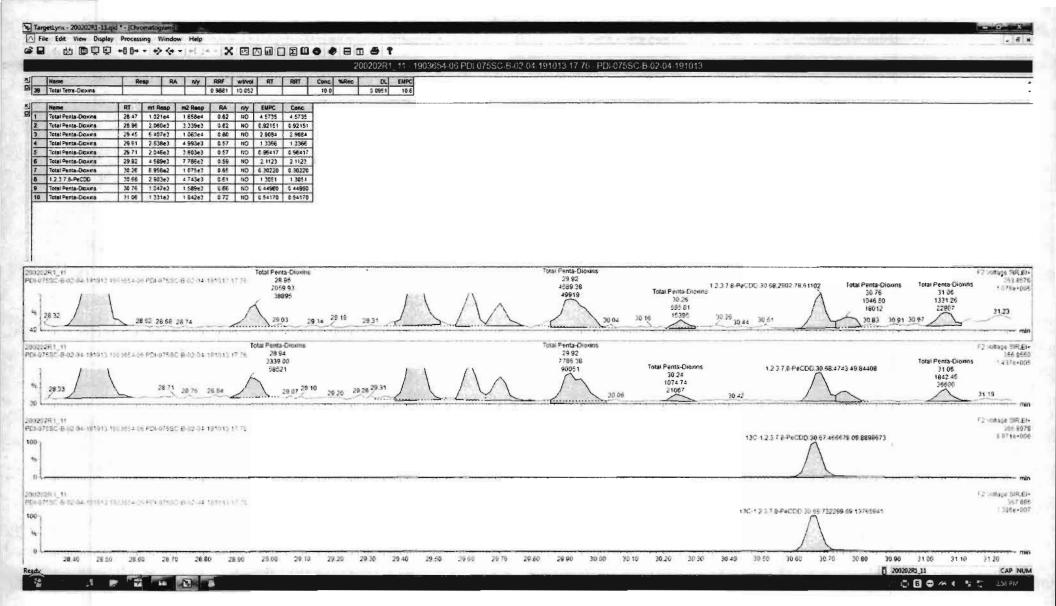
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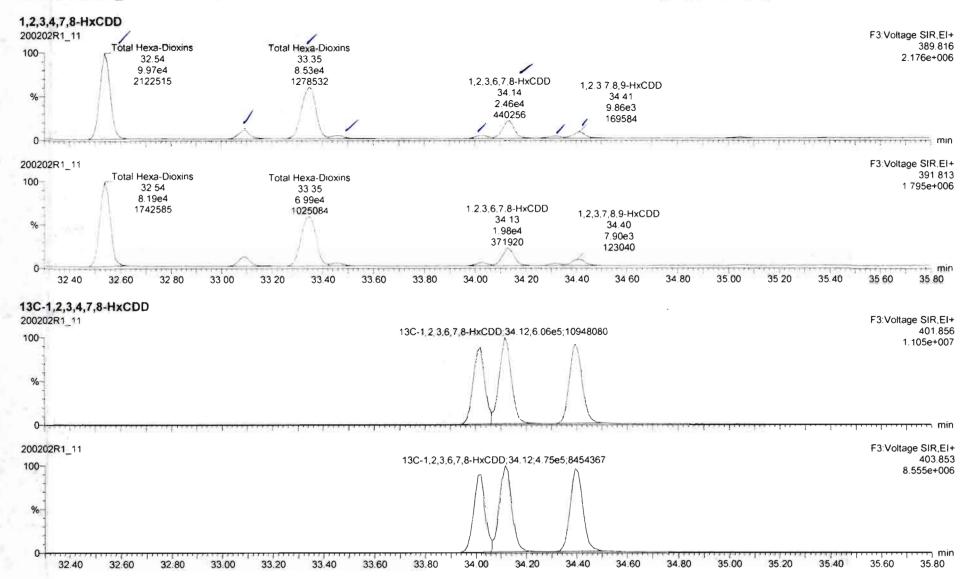
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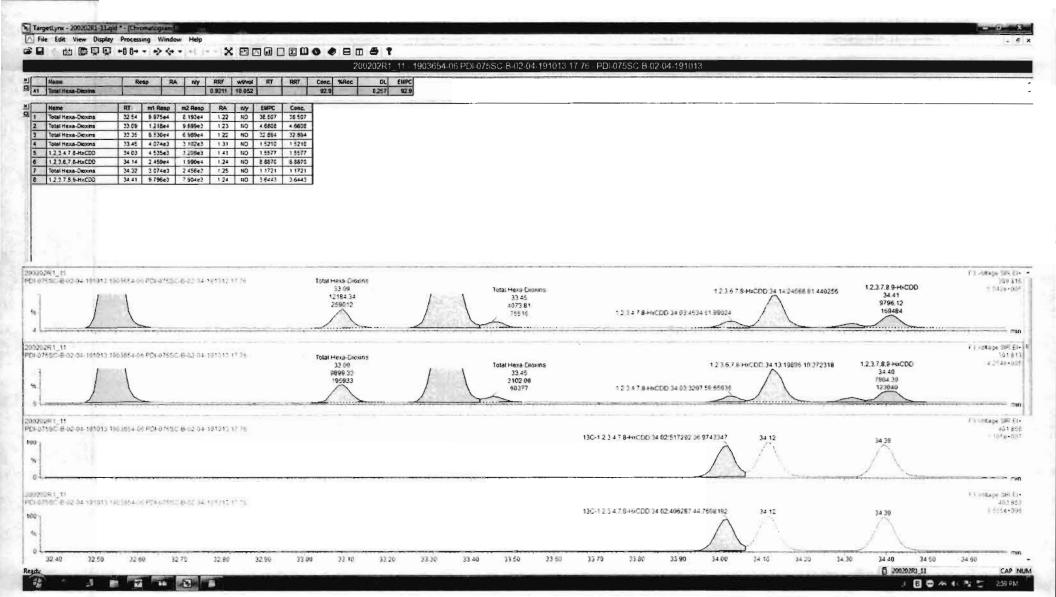




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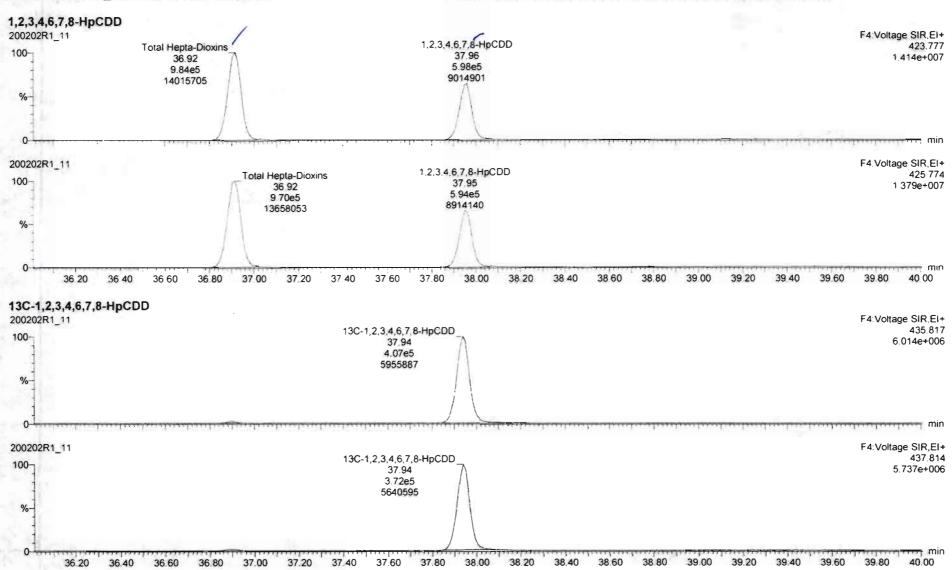




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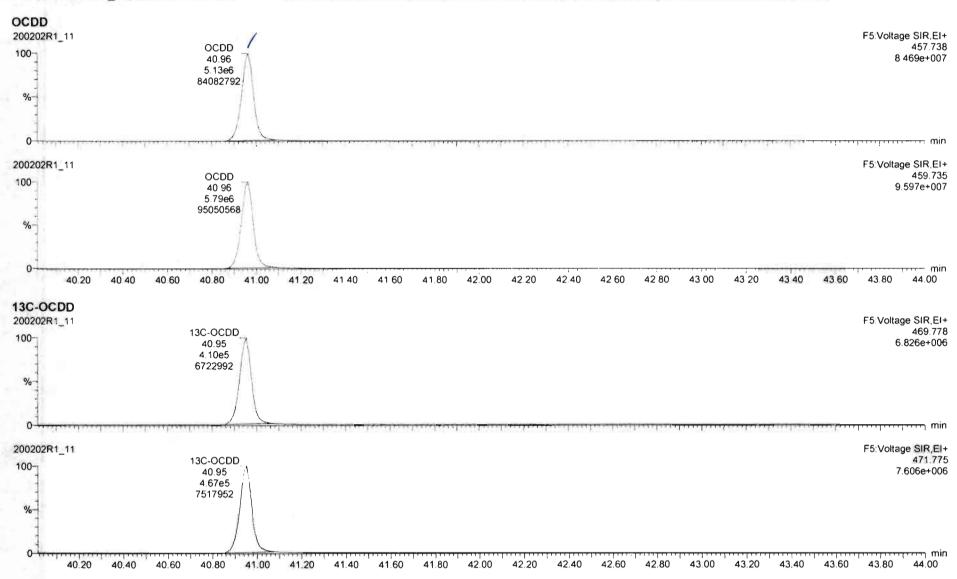
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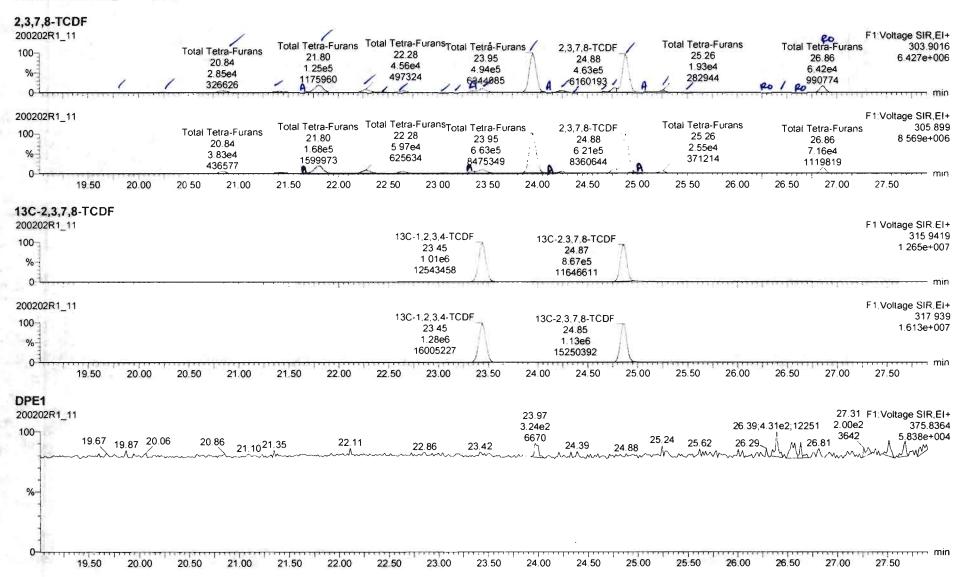
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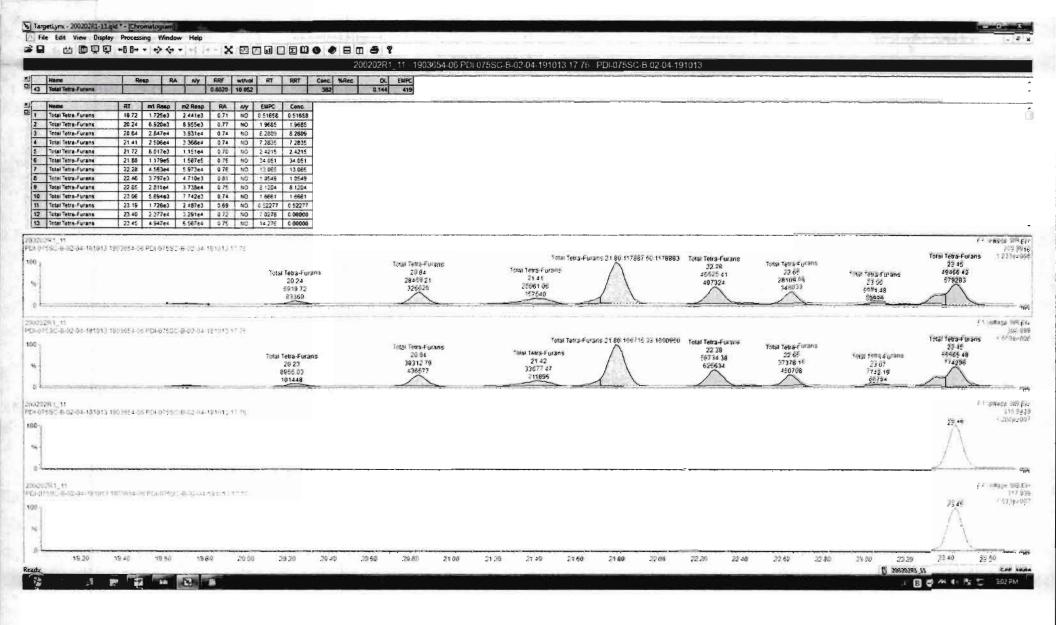
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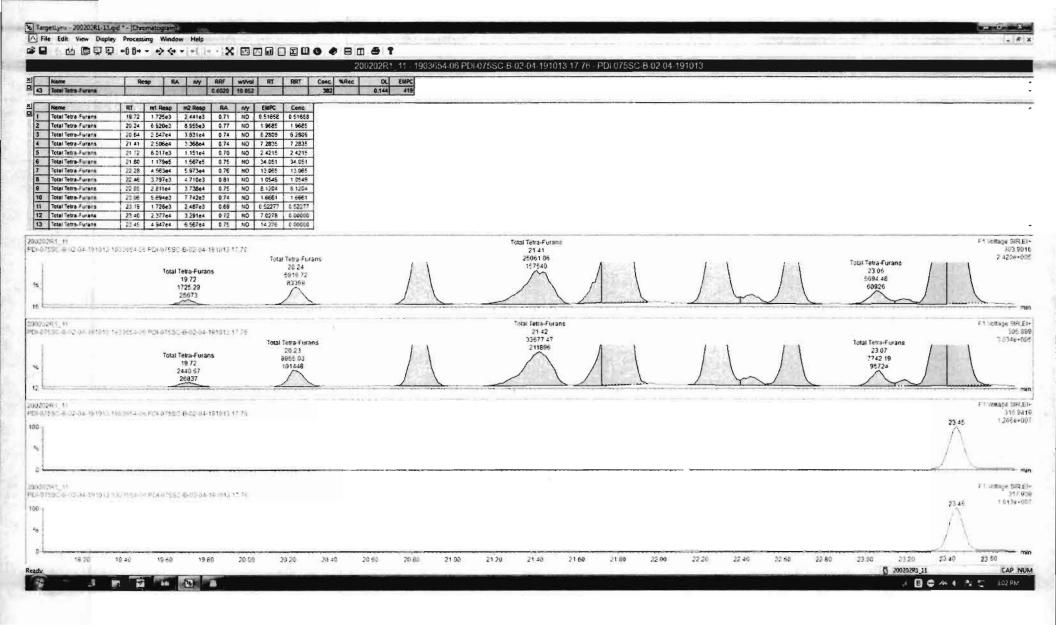
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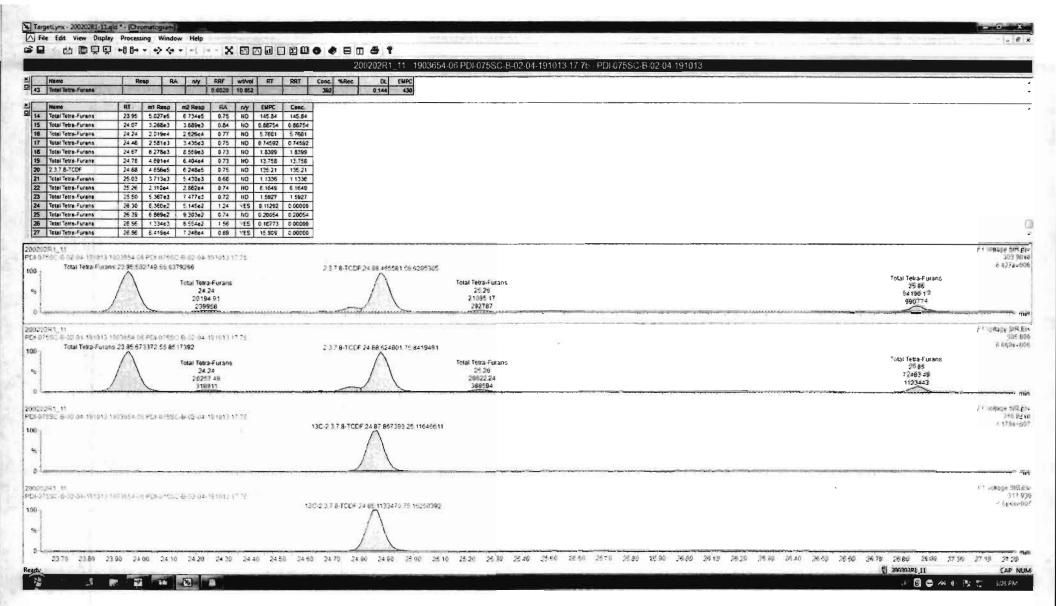




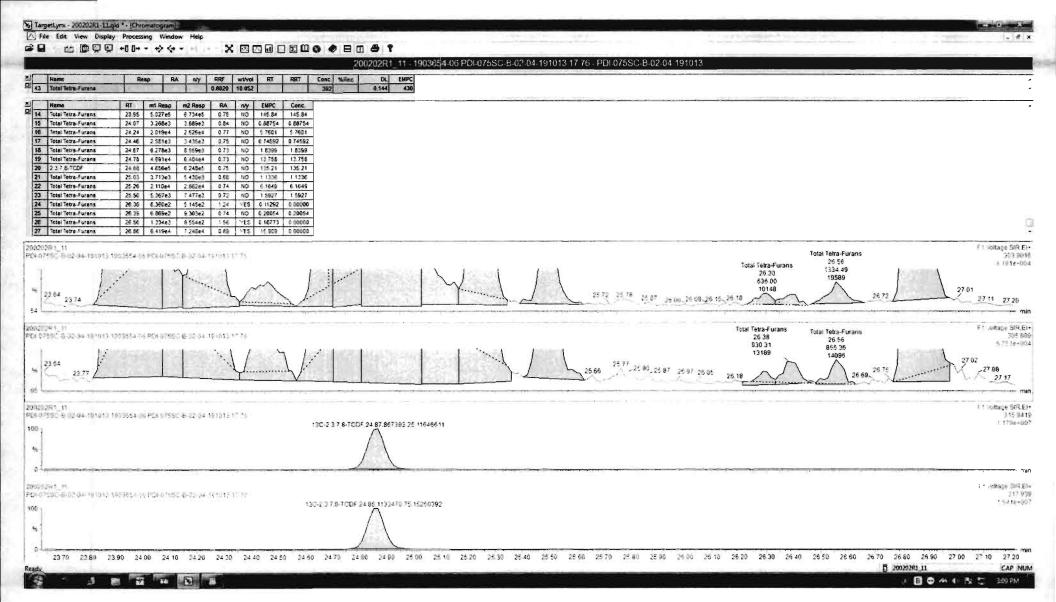
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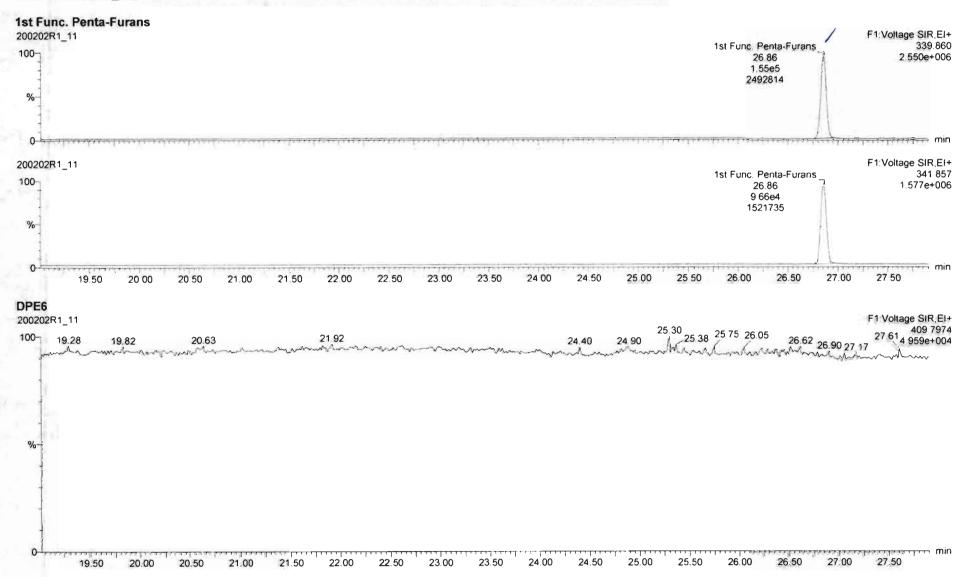
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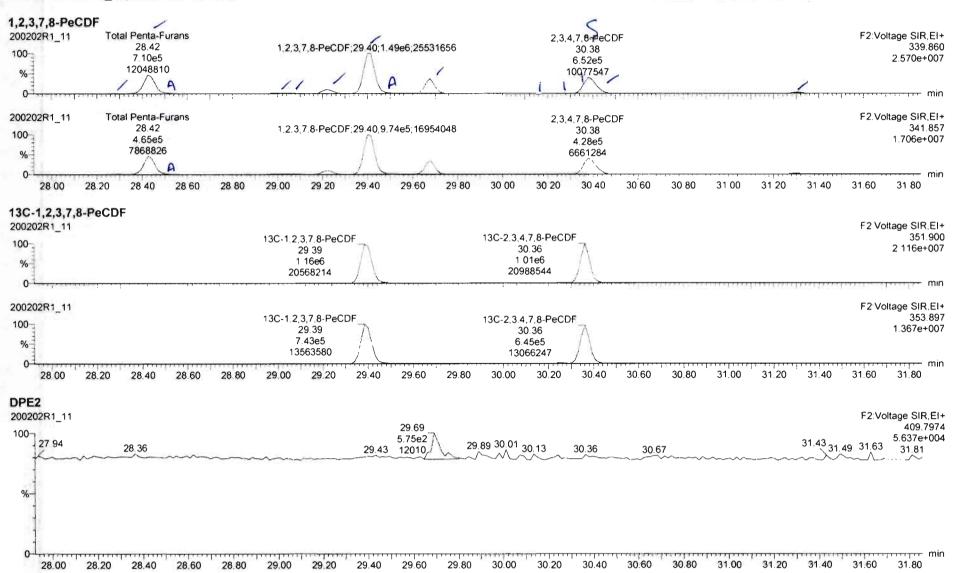
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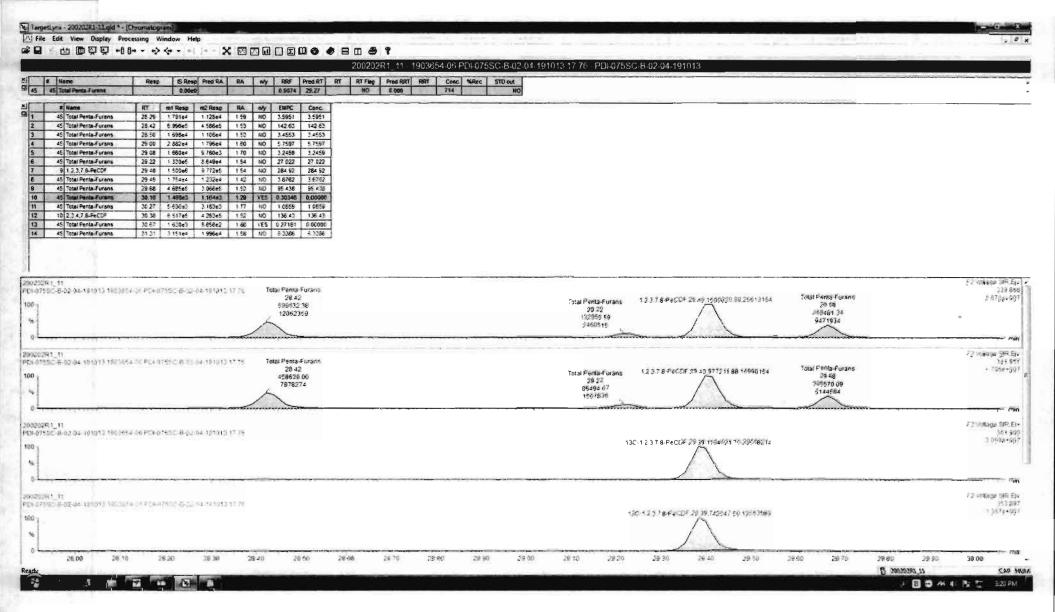
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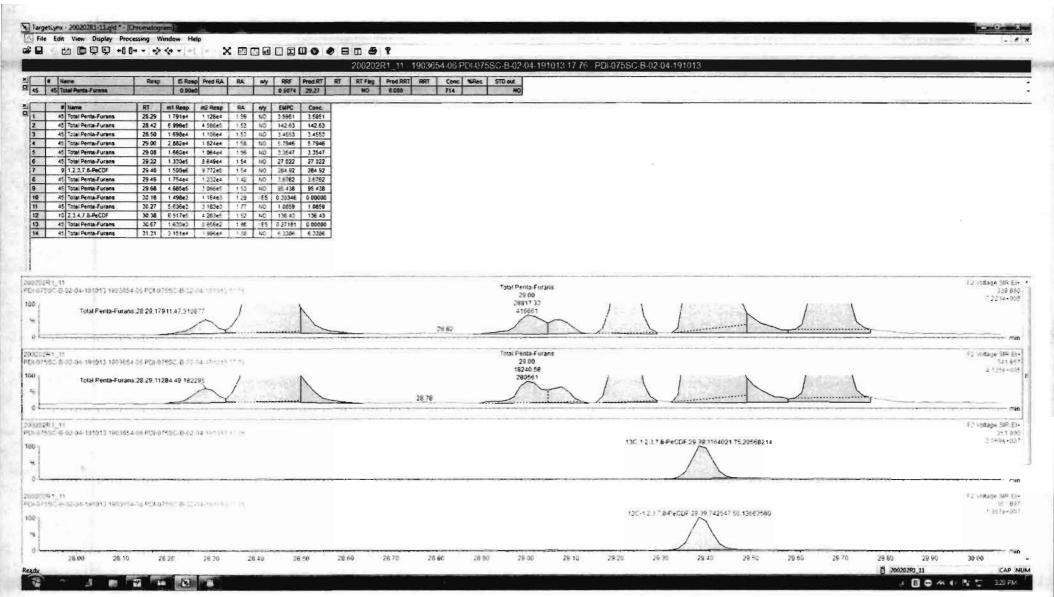


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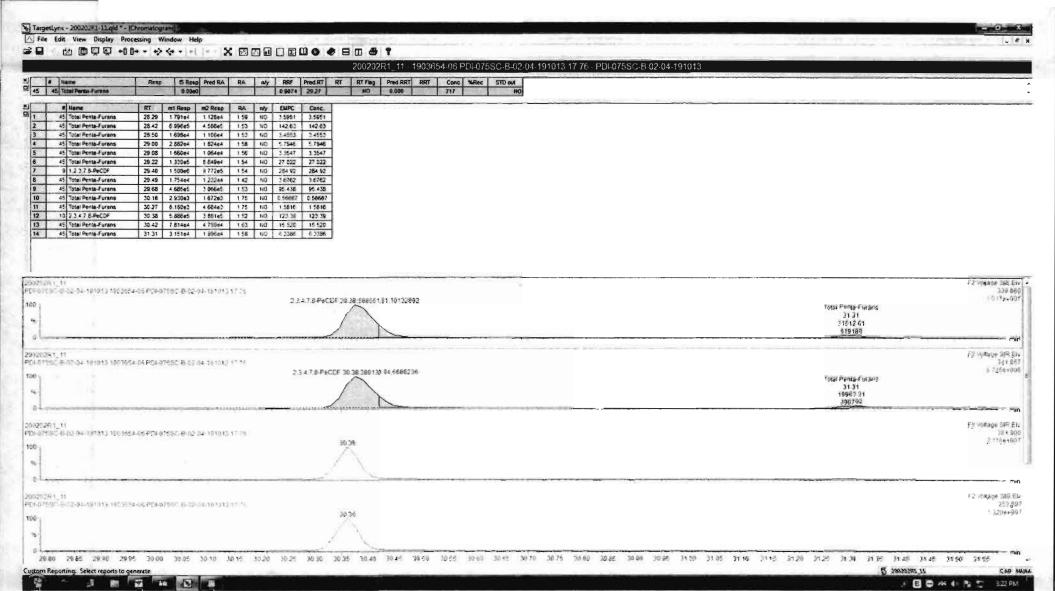
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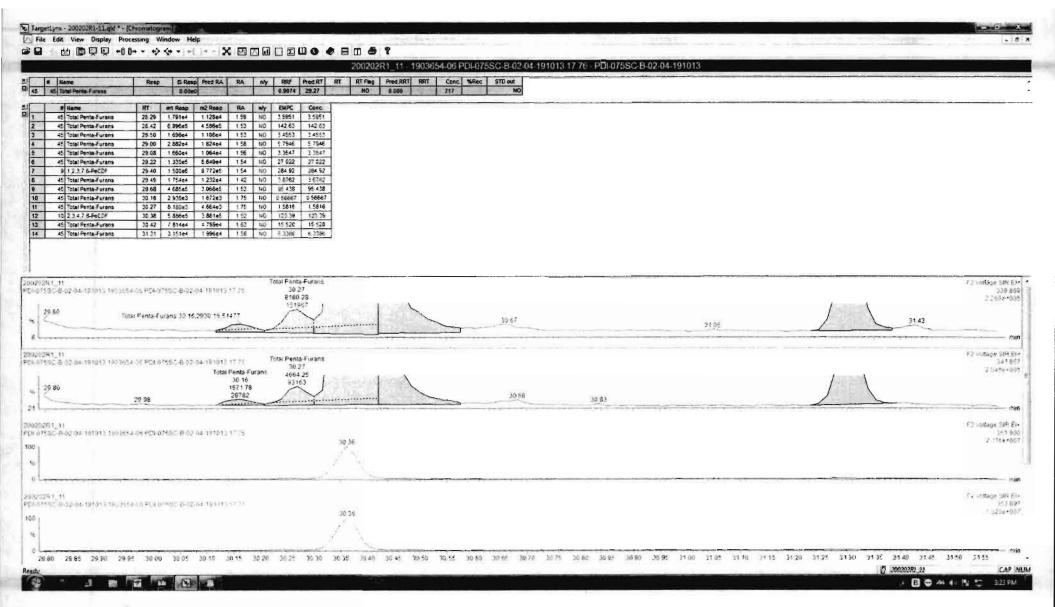






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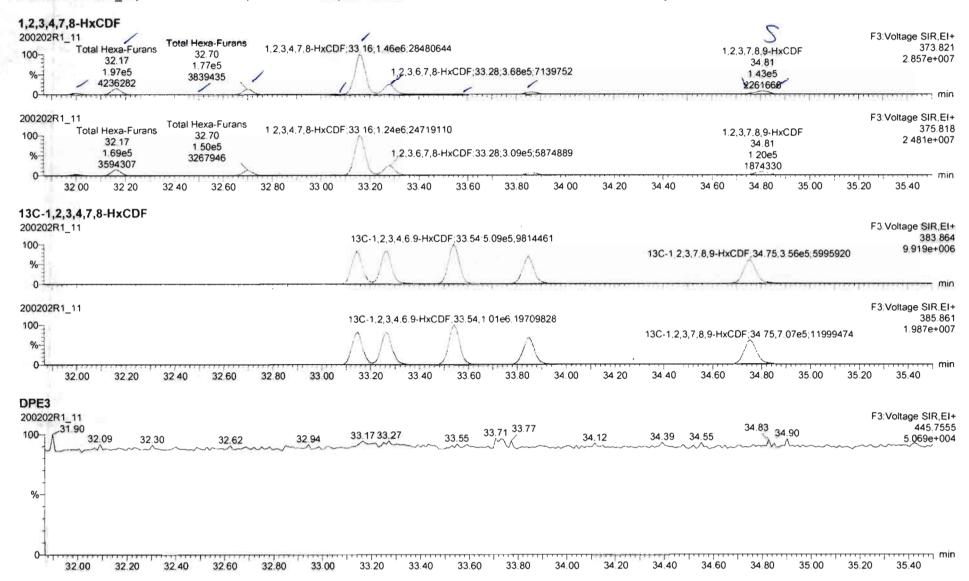


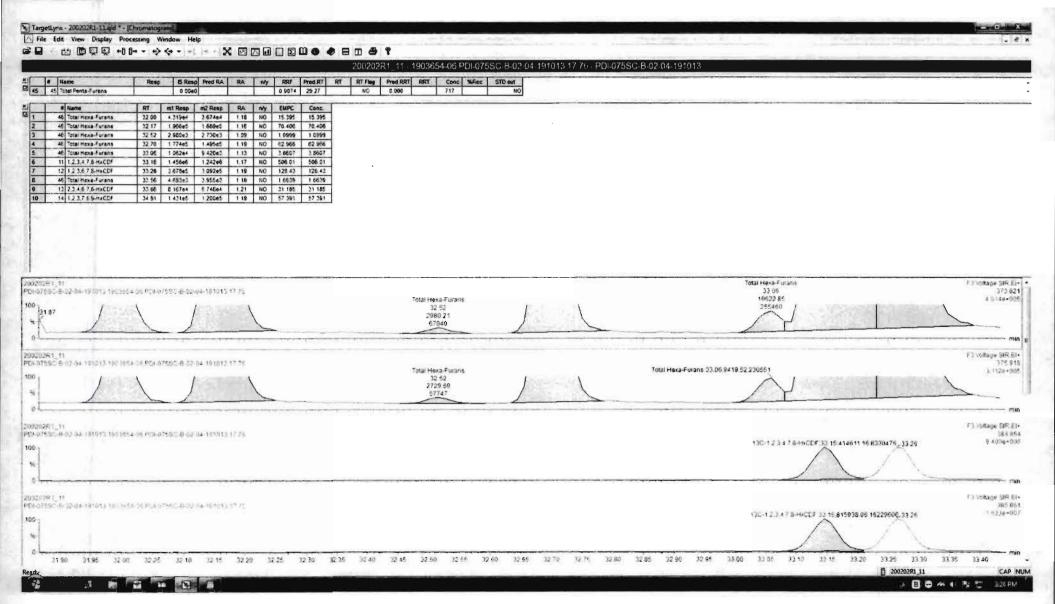
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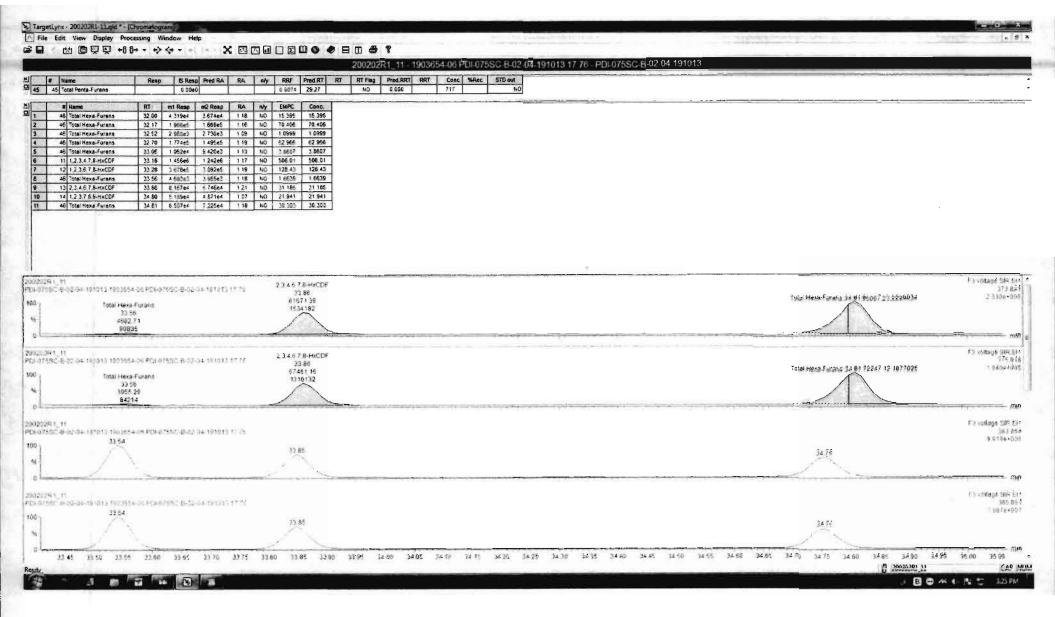
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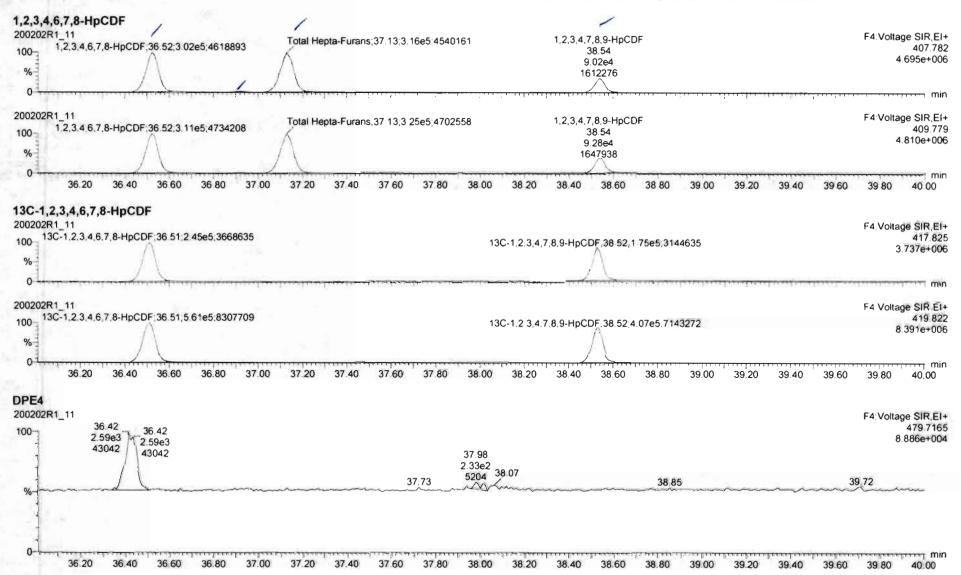


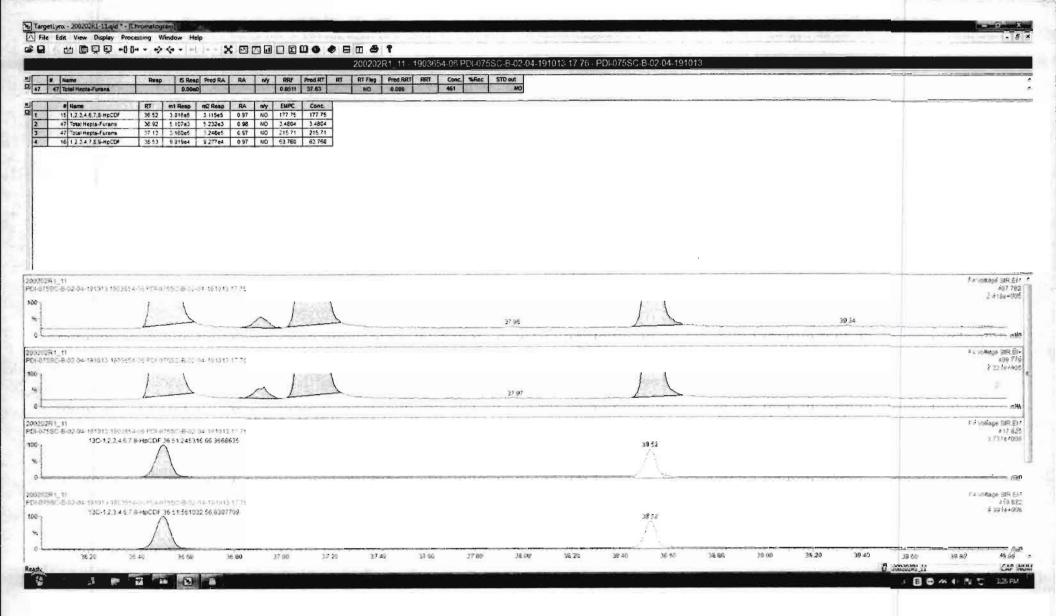
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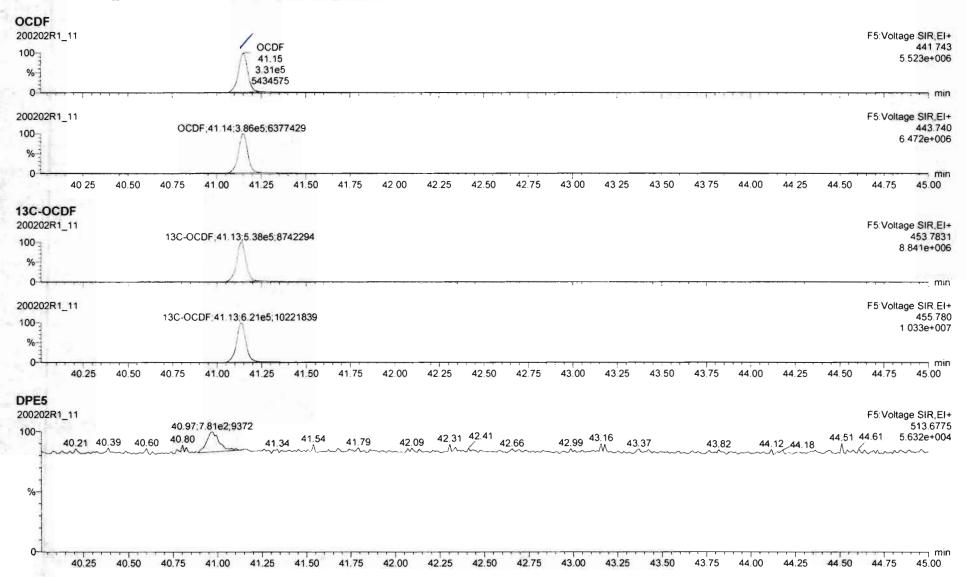
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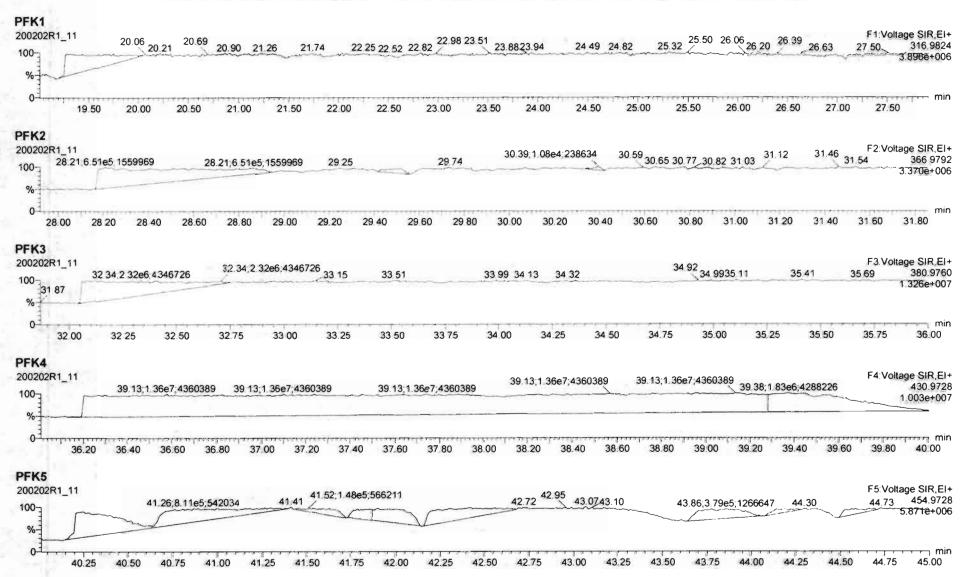
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Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-13.qld

Last Altered:

Tuesday, February 11, 2020 16:20:17 Pacific Standard Time

Printed:

Tuesday, February 11, 2020 16:21:00 Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

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Name: 200202R1_13, Date: 02-Feb-2020, Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

35. 18	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc. %R	ec DL	EMPC
1	1 2,3,7,8-TCDD	4.62e3	0.62	YES	0.988	10.091	25.766	25.77	1.001	1.001	0.53258	0.102	0.469
2	2 1,2,3,7,8-PeCDD	6.43e3	0.56	NO	0.972	10.091	30.673	30.67	1.001	1.000	0.99298	0.128	0.993
3	3 1.2,3,4,7,8-HxCDD	9.83 e 3	1.30	NO	1.07	10.091	34.008	34.02	1.000	1.001	1.8432	0.345	1.84
4	4 1.2,3,6,7,8-HxCDD	9.12e4	1.24	NO	0.921	10.091	34.104	34.12	1.000	1.000	16.081	0.338	16.1
5	5 1.2,3,7,8,9-HxCDD	2.86e4	1.26	NO	0.918	10.091	34.415	34.40	1.001	1.001	5.2559	0.358	5.26
6	6 1,2,3,4,6,7,8-HpCDD	4.47e6	1.00	NO	0.923	10.091	37.949	37.95	1.000	1.000	1055.6	1.72	1060
7	7 OCDD	2.52e7	0.88	NO	0.975	10.091	40.974	40.99	1.000	1.000	6781.3EX	0.732	6780
8	8 2,3,7,8-TCDF	8.79e4	0.75	NO	0.802	10.091	24.877	24.87	1.001	1.001	9.5802 (8.8 3	0.135	9.58
9	9 1,2,3,7,8-PeCDF	9.36e4	1.58	NO	0.907	10.091	29.391	29.39	1.001	1.001	10.540	0.105	10.5
10	10 2,3,4,7,8-PeCDF	3.96e4	1.45	NO	0.952	10.091	30.357	30.36	1.000	1.000	4.4875	0.100	4.49
11	11 1,2,3,4,7,8-HxCDF	7.81e4	1.20	NO	0.862	10.091	33.135	33.15	1.000	1.000	13.649	0.145	13.6
12	12 1,2,3,6.7,8-HxCDF	1.96e4	1.18	NO	0.841	10.091	33.262	33.26	1.000	1.000	3.4067	0.146	3.41
13	13 2,3,4,6,7,8-HxCDF	8.98e3	1.27	NO	0.898	10.091	33.872	33.85	1.001	1.000	1.6059	0.155	1.61
14	14 1.2,3,7,8,9-HxCDF	4.17e3	1.14	NO	0.858	10.091	34.733	34.78	1.000	1.001	0.83458	0.199	0.835
15	15 1,2,3,4,6,7,8-HpCDF	1.68e5	0.99	NO	0.851	10.091	36.538	36.51	1.001	1.000	42.419	0.312	42.4
16	16 1,2,3,4,7,8.9-HpCDF	1.60e4	1.01	NO	0.980	10.091	38.524	38.53	1.000	1.000	4.7710	0.315	4.77
17	17 OCDF	8.35e5	0.82	NO	0.806	10.091	41.166	41.18	1.000	1.000	260.43	0.290	260
18	18 13C-2,3,7,8-TCDD	1.74e6	0.78	NO	1.20	10.091	25.737	25.74	1.026	1.026	157.32 79	.4 0.324	
19	19 13C-1,2.3.7.8-PeCDD	1.32e6	0.62	NO	0.967	10.091	30.487	30.65	1.215	1.222	147.89 74	.6 0.189	
20	20 13C-1,2,3.4,7.8-HxCDD	9.87e5	1.25	NO	0.874	10.091	33.998	34.00	1.014	1.014	130.53 65	.9 0.256	1
21	21 13C-1,2,3.6,7.8-HxCDD	1.22e6	1.26	NO	1.05	10.091	34.099	34.10	1 017	1.017	134.88 68	.1 0.214	
22	22 13C-1,2,3,7,8,9-HxCDD	1.17e6	1.24	NO	0.974	10.091	34.401	34.38	1.026	1.025	139.16 70.	.2 0.229	
23	23 13C-1.2.3.4,6,7,8-HpCDD	9.09e5	1.04	NO	0.747	10.091	37.955	37.94	1.132	1.131	140.66 71	.0 0.380	
24	24 13C-OCDD	1.51e6	0.89	NO	0.707	10.091	40.838	40.97	1.218	1.222	247.14 62.	.3 0.200	
25	25 13C-2,3,7,8-TCDF	2.27e6	0.78	NO	1.07	10.091	24.916	24.85	0.993	0.990	159.24 80	.3 0.419	
26	26 13C-1,2,3,7,8-PeCDF	1.94e6	1.56	NO	1.00	10.091	29.257	29.37	1.166	1.170	144.81 73	.1 0.325	
27	27 13C-2,3,4,7,8-PeCDF	1.8 4e 6	1.58	NO	0.962	10.091	30.211	30.35	1.204	1.209	142.77 72	.0 0.338	Ì
28	28 13C-1,2,3,4,7,8-HxCDF	1.32 e 6	0.51	NO	1.05	10.091	33.127	33.13	0.988	0.988	144.97 73	.1 0.247	
29	29 13C-1,2,3,6,7,8-HxCDF	1.35e6	0.51	NO	1.19	10.091	33.227	33.25	0.991	0.992	131.47 66	.3 0.218	
30	30 13C-2,3,4,6,7,8-HxCDF	1.23e6	0.51	NO	1.07	10.091	33.834	33.84	1.009	1.009	133.72 67	.5 0.244	
31	31 13C-1,2,3,7,8,9-HxCDF	1.15e6	0.51	NO	0.922	10.091	34.736	34.73	1.036	1.036	144.61 73	.0 0.282	

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Name: 200202R1_13, Date: 02-Feb-2020, Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	9.23e5	0.43	NO	0.767	10.091	36.480	36.50	1.088	1.089	138.99	70.1	0.286	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.79 e 5	0.44	NO	0.552	10.091	38.491	38.52	1.148	1.149	142.18	71.7	0.398	
34	34 13C-OCDF	1.58e6	0.88	NO	0.789	10.091	41.073	41.17	1.225	1.228	230.86	58.2	0.222	
35	35 37CI-2,3,7,8-TCDD	7.18e5			1 18	10.091	25.769	25.75	1.027	1.026	66.117	83.4	0.103	
36	36 13C-1.2,3,4-TCDD	1.83e6	0.78	NO	1.00	10.091	25.080	25.09	1.000	1.000	198.19	100	0.388	
37	37 13C-1,2,3,4-TCDF	2.65e6	0.79	NO	1.00	10.091	23.420	23.43	1.000	1.000	198.19	100	0.446	
38	38 13C-1.2,3,4.6,9-HxCDF	1.71e6	0.51	NO	1.00	10.091	33.520	33.53	1.000	1.000	198.19	100	0 260	
39	39 Total Tetra-Dioxins				0.988	10.091	24.620		0.000		12.835		0.102	13.3
40	40 Total Penta-Dioxins				0.972	10.091	29.960		0.000		27.183		0.128	27.2
41	41 Total Hexa-Dioxins				0.921	10.091	33.635		0.000		246.25		0.363	246
42	42 Total Hepta-Dioxins				0.923	10.091	37.640		0.000		2461.5		1.72	2460
43	43 Total Tetra-Furans				0.802	10.091	23.610		0.000		33.994		0.135	35.4
44	44 1st Func. Penta-Furans				0.907	10.091	27.090		0.000		7.6424		0.0401	7.64
45	45 Total Penta-Furans				0.907	10.091	29.275		0.000		34.875		0.105	36.6
46	46 Total Hexa-Furans				0.898	10.091	3 3 .555		0.000		55.353		0 154	55.4
47	47 Total Hepta-Furans				0.851	10.091	37.835		0.000		230.49		0.333	230

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Dataset:

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Name: 200202R1_13, Date: 02-Feb-2020, Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.81	5.526e4	8.245e4	5.515e3	7.232e3	0.76	NO	1.275e4	1.4694	1.4694	0.102
2	Total Tetra-Dioxins	22.23	3.184e4	4.371e4	3.150e3	3.765e3	0.84	NO	6.915e3	0.79712	0.79712	0.102
3	Total Tetra-Dioxins	22.71	5.525e4	6.966e4	4.484e3	5.197e3	0.86	NO	9.681e3	1.1159	1.1159	0.102
4	Total Tetra-Dioxins	23.59	1.869e4	2.212e4	1.412e3	1.880e3	0.75	NO	3.293e3	0.37956	0.37956	0.102
5	Total Tetra-Dioxins	23.85	7.047e4	8.273e4	6.258e3	7.521e3	0.83	NO	1.378e4	1.5883	1.5883	0.102
6	Total Tetra-Dioxins	23.91	2.971e4	3.793e4	1.711e3	2.103e3	0.81	NO	3.814e3	0.43965	0.43965	0.102
7	Total Tetra-Dioxins	24.07	5.521e4	7.173e4	4.086e3	4.829e3	0.85	NO	8.914e3	1.0276	1.0276	0.102
8	Total Tetra-Dioxins	24.27	2.812e4	3.741e4	2.211e3	2.725e3	0.81	NO	4.936e3	0.56896	0.56896	0.102
9	Total Tetra-Dioxins	24.52	3.193e4	3.456e4	2.225e3	2.531e3	0.88	NO	4.757e3	0.54831	0.54831	0.102
10	Total Tetra-Dioxins	24.69	4.117e4	5.767e4	2.986e3	3.973e3	0.75	NO	6.959e3	0.80220	0.80220	0.102
11	Total Tetra-Dioxins	25.05	4.362e4	5.220e4	3.520e3	4.244e3	0.83	NO	7.764e3	0.89499	0.89499	0.102
12	Total Tetra-Dioxins	25.21	2.188e4	2.786e4	1.406e3	1.859e3	0.76	NO	3.265e3	0.37639	0.37639	0.102
13	Total Tetra-Dioxins	25.48	3.422e4	4.417e4	3.235e3	4.153e3	0.78	NO	7.388e3	0.85166	0.85166	0.102
14	Total Tetra-Dioxins	25.60	2.433e4	3.479e4	1.893e3	2.679e3	0.71	NO	4.572e3	0.52702	0.52702	0.102
15	2,3,7,8-TCDD	25.77	2.470e4	4.607e4	1.769e3	2.851e3	0.62	YES	4.620e3	0.00000	0.46868	0.102
16	Total Tetra-Dioxins	26.07	4.607e4	6.119e4	3.163e3	3.965e3	0.80	NO	7.128e3	0.82164	0.82164	0.102
17	Total Tetra-Dioxins	26.18	1.403e4	1.718e4	8.238e2	1.116e3	0.74	NO	1 939e3	0 22356	0.22356	0.102
18	Total Tetra-Dioxins	26.69	2.450e4	3.192e4	1.615e3	1.875e3	0.86	NO	3.491e3	0.40240	0.40240	0.102

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Name: 200202R1_13, Date: 02-Feb-2020, Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.45	2.100e5	3.385e5	1.638e4	2.617e4	0.63	NO	4.254e4	6.5735	6.5735	0.128
2	Total Penta-Dioxins	28.94	1.473e5	2.457e5	8.237e3	1.289e4	0.64	NO	2.113e4	3.2646	3.2646	0.128
3	Total Penta-Dioxins	29.43	9.695e4	1.542e5	5.666e3	8 409e3	0.67	NO	1.407e4	2.1747	2.1747	0.128
4	Total Penta-Dioxins	29.60	1.184e5	1.722e5	5.338e3	8.233e3	0.65	NO	1.357e4	2.0968	2.0968	0.128
5	Total Penta-Dioxins	29.69	6.620e4	1.169e5	4.029e3	6.203e3	0.65	NO	1.023e4	1.5809	1.5809	0.128
6	Total Penta-Dioxins	29.90	1.989e5	3.274e5	8.074e3	1.314e4	0.61	NO	2.122e4	3.2786	3.2786	0.128
7	Total Penta-Dioxins	29.93	1.885e5	3.103e5	9.398e3	1.492e4	0.63	NO	2.432e4	3.7577	3.7577	0.128
8	Total Penta-Dioxins	30.24	3.686e4	6.045e4	2.041e3	3.180e3	0.64	NO	5.220e3	0.80661	0.80661	0.128
9	1,2,3,7.8-PeCDD	30.67	4.482e4	9.018e4	2.297e3	4.129e3	0.56	NO	6.427e3	0.99298	0.99298	0.128
10	Total Penta-Dioxins	30.74	7.270e4	1.164e5	3.814e3	5.903e3	0.65	NO	9.717e3	1.5014	1.5014	0.128
11	Total Penta-Dioxins	31.05	5.806e4	8.636e4	2.956e3	4.517e3	0.65	NO	7.473e3	1.1547	1.1547	0.128

Hexa-Dioxins

11777	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.53	6.392e6	5.139e6	3.054e5	2.499e5	1.22	NO	5.553e5	106.03	106.03	0.363
2	Total Hexa-Dioxins	33.08	6.152e5	4.984e5	3.158e4	2.583e4	1.22	NO	5.741e4	10.962	10.962	0.363
3	Total Hexa-Dioxins	33.34	3.890e6	3.194e6	2.695e5	2.205e5	1 22	NO	4.900e5	93.559	93.559	0.363
4	Total Hexa-Dioxins	33.44	2.890e5	2.568e5	1.722e4	1.392e4	1.24	NO	3.114e4	5.9458	5.9458	0.363
5	1 2,3.4,7,8-HxCDD	34 02	1.101e5	8.220e4	5.563e3	4.266e3	1 30	NO	9.829e3	1.8432	1.8432	0.345
6	1.2.3.6,7.8-HxCDD	34.12	8.880e5	7.004e5	5.043e4	4.079e4	1.24	NO	9.122e4	16.081	16.081	0.338
7	Total Hexa-Dioxins	34.31	3.319e5	2.780e5	1.878e4	1.565e4	1.20	NO	3.443e4	6.5733	6 5733	0.363
8	1,2,3,7.8,9-HxCDD	34.40	2.695e5	2.155e5	1.592e4	1.264e4	1.26	NO	2.857e4	5.2559	5 2559	0.358

Hepta-Dioxins

THE DAY	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.90	4.020e7	3.944e7	2.994e6	2.961e6	1.01	NO	5.955e6	1405.9	1405.9	1.72
2	1,2,3,4,6,7.8-HpCDD	37.95	3.070e7	3. 041e 7	2.240e6	2. 2 31e6	1.00	NO	4.471e6	1055.6	1055.6	1.72

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Quantify Totals Report MassLynx 4.1 SCN815

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Name: 200202R1_13, Date: 02-Feb-2020, Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

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Tetra-Furans

45.00	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.72	9.759e3	1.633e4	8.266e2	1.208e3	0.68	NO	2.035e3	0.22167	0.22167	0.135
2	Total Tetra-Furans	20.24	1.981e4	2.880e4	1.919e3	2.358e3	0.81	NO	4.277e3	0.46594	0.46594	0.135
3	Total Tetra-Furans	20.84	8.712e4	1.204e5	8.320e3	1.073e4	0.78	NO	1.905e4	2.0749	2.0749	0.135
4	Total Tetra-Furans	21.39	2.396e4	3.293e4	4.015e3	5.039e3	0.80	NO	9.054e3	0.98629	0.98629	0.135
5	Total Tetra-Furans	21.69	1 213e4	1.695e4	6.323e2	8.278e2	0.76	NO	1.460e3	0.15905	0.15905	0.135
6	Total Tetra-Furans	21.78	1.275e5	1.701e5	1.391e4	1.783e4	0.78	NO	3.174e4	3.4576	3.4576	0.135
7	Total Tetra-Furans	22.28	7.285e4	9.713e4	6.828e3	9.203e3	0.74	NO	1.603e4	1.7463	1.7463	0.135
8	Total Tetra-Furans	22.61	1.950e4	3.042e4	1.597e3	2.424e3	0.66	NO	4.021e3	0.43802	0.43802	0.135
9	Total Tetra-Furans	23.07	6.415e3	1.010e4	4.872e2	7.193e2	0.68	NO	1.207e3	0.13143	0.13143	0.135
10	Total Tetra-Furans	23.19	8.950e3	8.759e3	7.682e2	7.829e2	0.98	YES	0.000e0	0.00000	0.15094	0.135
11	Total Tetra-Furans	23.34	5.837e4	8.381e4	4.783e3	6.685e3	0.72	NO	1.147e4	1.2491	1.2491	0.135
12	Total Tetra-Furans	23.43	7.033e4	8.270e4	5.543e3	7.128e3	0.78	NO	1.267e4	1.3803	1.3803	0.135
13	Total Tetra-Furans	23.94	4.878e5	6.604e5	3.838e4	5.186e4	0.74	NO	9.024e4	9.8297	9.8297	0.135
14	Total Tetra-Furans	24.22	2.043e4	2.809e4	1.533e3	2.173e3	0.71	NO	3.706e3	0.40372	0.40372	0.135
15	Total Tetra-Furans	24.64	1.535e4	1.837e4	7.155e2	8.841e2	0.81	NO	1.600e3	0.17424	0.17424	0.135
16	Total Tetra-Furans	24.76	6.787e4	9.469e4	4.787e3	6.225e3	0.77	NO	1.101e4	1.1995	1.1995	0.135
17	2,3,7,8-TCDF	24.87	5.214e5	6.889e5	3.763e4	5.032e4	0 75	NO	8.795e4	9.5802	9.5802	0.135
18	Total Tetra-Furans	25.23	2.820e4	4.065e4	1.908e3	2.649e3	0.72	NO	4.557e3	0.49636	0.49636	0.135
19	Total Tetra-Furans	26.84	1.001e5	9.243e4	6.958e3	6.605e3	1.05	YES	0.000e0	0.00000	1.2735	0.135

Penta-Furans function 1

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	26.84	6.402e5	3.903e5	4.021e4	2.586e4	1.55	NO	6.606e4	7.6424	7.6424	0.0401

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Name: 200202R1_13, Date: 02-Feb-2020, Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

Penta-Furans

T. T. T.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.26	4.365e4	2.110e4	3.261e3	1.938e3	1.68	NO	5.199e3	0.60142	0.60142	0.105
2	Total Penta-Furans	28.41	6.537e5	4.245e5	4.337e4	2.764e4	1.57	NO	7.101e4	8.2141	8.2141	0.105
3	Total Penta-Furans	28.99	1.201e5	8.963e4	7.256e3	5.280e3	1.37	NO	0.000e0	0.00000	1.4503	0.105
4	Total Penta-Furans	29.03	3.362e4	2.335e4	1.179e3	8.725e2	1.35	NO	0.000e0	0.00000	0.23732	0.105
5	Total Penta-Furans	29.20	1.554e5	1 081e5	8.714e3	5.798e3	1.50	NO	1.451e4	1.6788	1.6788	0.105
6	1,2,3,7.8-PeCDF	29.39	1.053e6	6.723e5	5.740e4	3.622e4	1.58	NO	9.362e4	10.540	10.540	0.105
7	Total Penta-Furans	29.66	5.193e5	3.194e5	2.632e4	1.745e4	1.51	NO	4.377e4	5.0636	5.0636	0.105
8	Total Penta-Furans	30.25	1.560e4	1.030e4	6.533e2	4.703e2	1.39	NO	1.124e3	0.12998	0.12998	0.105
9	2.3,4,7,8-PeCDF	30.36	6.037e5	4.072e5	2.343e4	1.613e4	1.45	NO	3.956e4	4.4875	4.4875	0.100
10	Total Penta-Furans	30.38	6.017e5	3.890e5	1.938e4	1.239e4	1.56	NO	3.177e4	3.6752	3.6752	0.105
11	Total Penta-Furans	31.29	5.279e4	3.104e4	2.583e3	1.605e3	1.61	NO	4.188e3	0.48445	0.48445	0.105

Hexa-Furans

(SH)	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.99	9.663e4	7.991e4	5.072e3	4.095e3	1.24	NO	9.167e3	1.5999	1.5999	0.154
2	Total Hexa-Furans	32.15	4.138e5	3.507e5	2.080e4	1.770e4	1.18	NO	3.850e4	6.7192	6.7192	0.154
3	Total Hexa-Furans	32.69	1.650e6	1.379e6	7.922e4	6.828e4	1.16	NO	1.475e5	25.744	25.744	0.154
4	1.2.3.4.7,8-HxCDF	33.15	7.758e5	6.703e5	4.258e4	3.557e4	1.20	NO	7.815e4	13.649	13.649	0.145
5	1.2,3.6,7,8-HxCDF	33.26	1 891e5	1 704e5	1.058e4	8.992e3	1.18	NO	1.957e4	3.4067	3.4067	0.146
6	Total Hexa-Furans	33.54	9.558e3	7.229e3	4.077e2	3.790e2	1 08	NO	7.867e2	0.13730	0.13730	0.154
7	Total Hexa-Furans	33.73	1.093e4	9.030e3	5.167e2	4.626e2	1.12	NO	9.793e2	0.17091	0.17091	0.154
8	2,3,4,6,7,8-HxCDF	33.85	8.983e4	7.530e4	5.017e3	3.961e3	1.27	NO	8.978e3	1.6059	1.6059	0.155
9	1.2,3,7,8,9-HxCDF	34.78	7.640e4	6.573e4	2.225e3	1.944e3	1.14	NO	4.169e3	0.83458	0.83458	0.199
10	Total Hexa-Furans	34.80	9.701e4	8.048e4	4.609e3	3.905e3	1.18	NO	8.515e3	1.4860	1.4860	0.154

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Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200202R1\200202R1-13.qld

Last Altered: Printed:

Tuesday, February 11, 2020 16:20:17 Pacific Standard Time Tuesday, February 11, 2020 16:21:00 Pacific Standard Time

Name: 200202R1_13, Date: 02-Feb-2020, Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

Page 5 of 5

Hepta-Furans

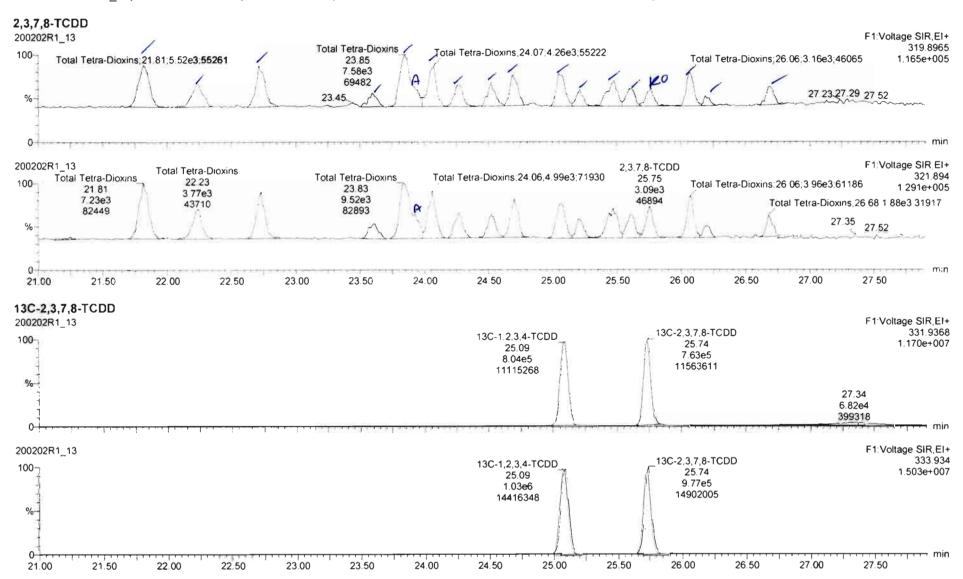
	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.51	1.131e6	1.133e6	8.379e4	8.426e4	0.99	NO	1.681e5	42.419	42.419	0.312
2	Total Hepta-Furans	36.92	2.979e4	2.560e4	1.832e3	1.896e3	0.97	NO	3.728e3	1.0839	1.0839	0.333
3	Total Hepta-Furans	37.12	4.127e6	4.270e6	3.100e5	3.167e5	0.98	NO	6.268e5	182.22	182.22	0.333
4	1,2,3,4.7,8,9-HpCDF	38.53	1.146e5	1.285e5	8.042e3	7.986e3	1.01	NO	1.603e4	4.7710	4.7710	0.315

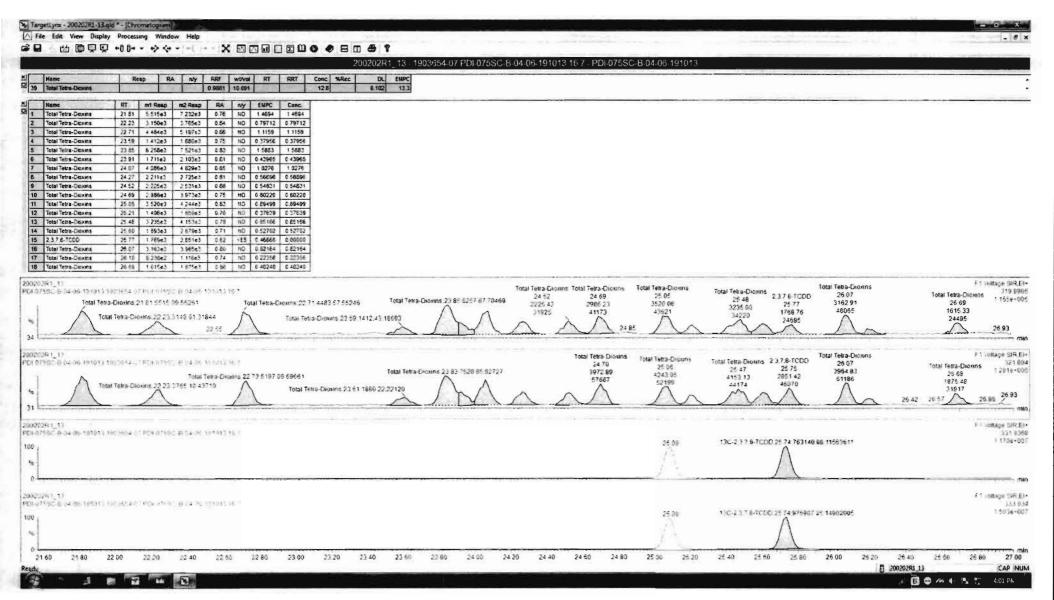
Work Order 1903654 Page 355 of 1184

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Name: 200202R1 13. Date: 02-Feb-2020. Time: 19:47:53, ID: 1903654-07 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

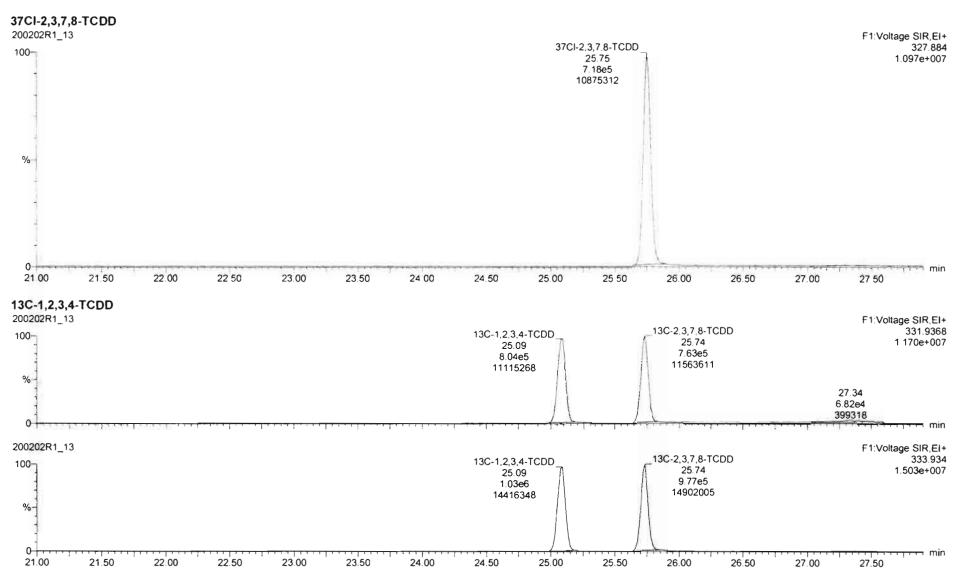




Work Order 1903654 Page 357 of 1184

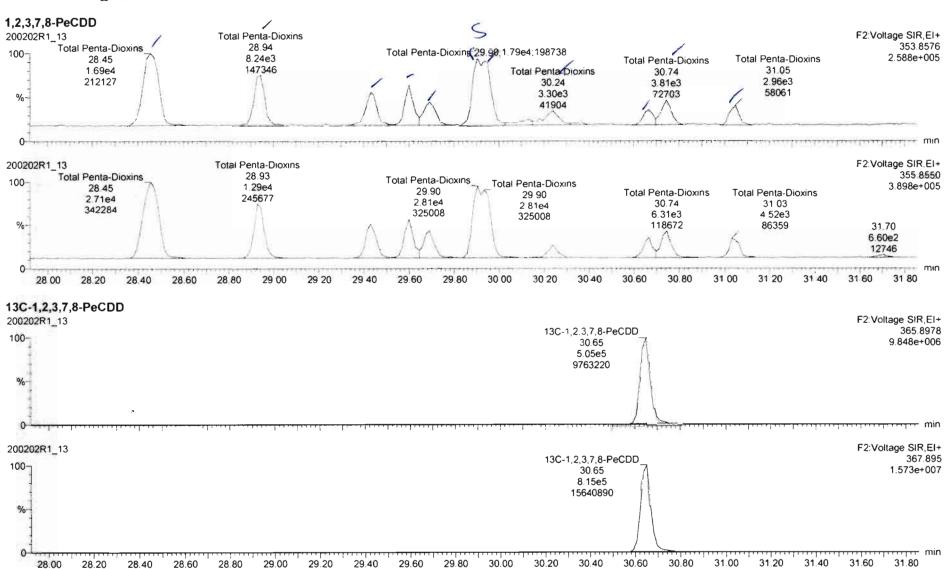
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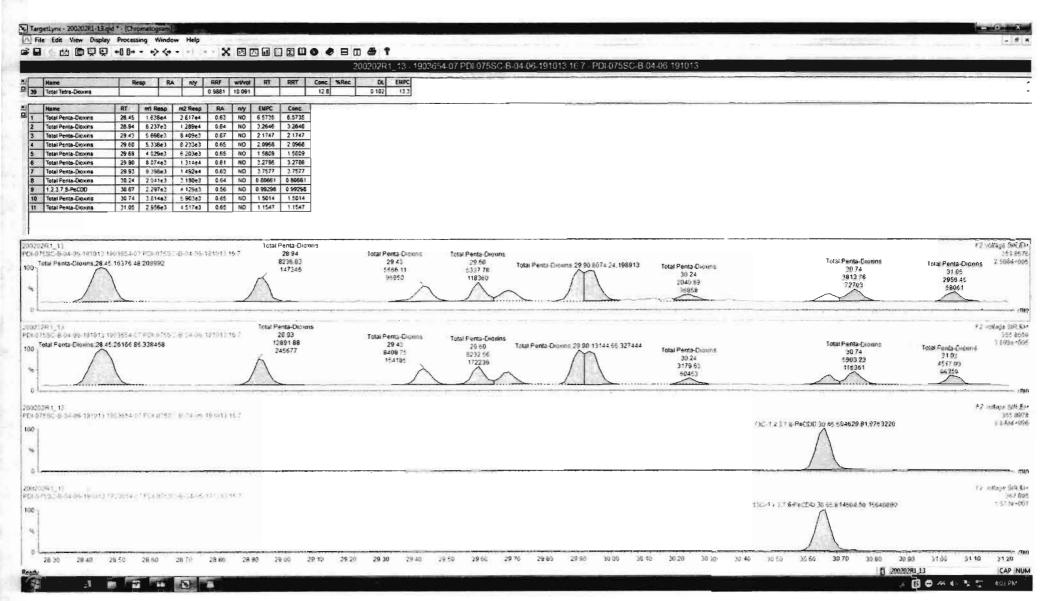
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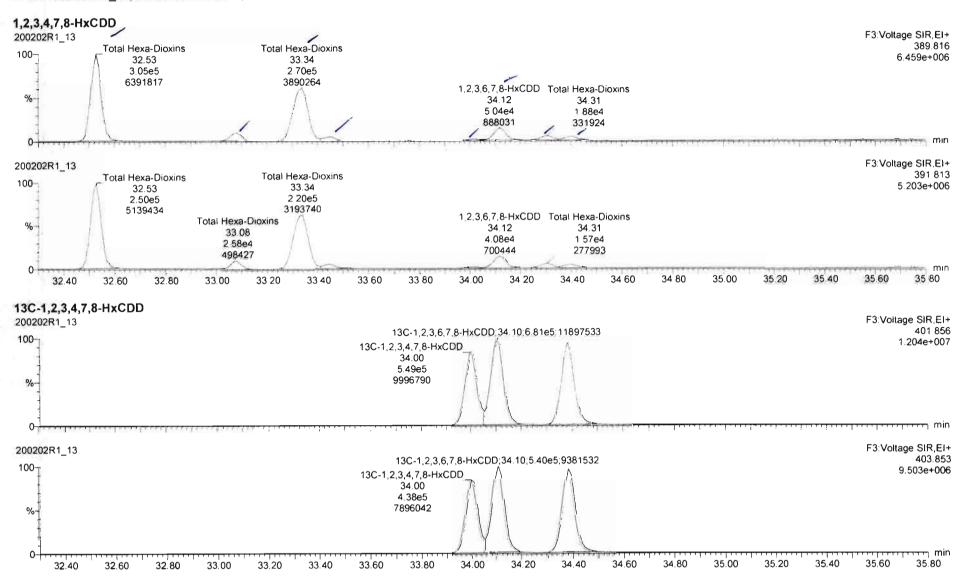


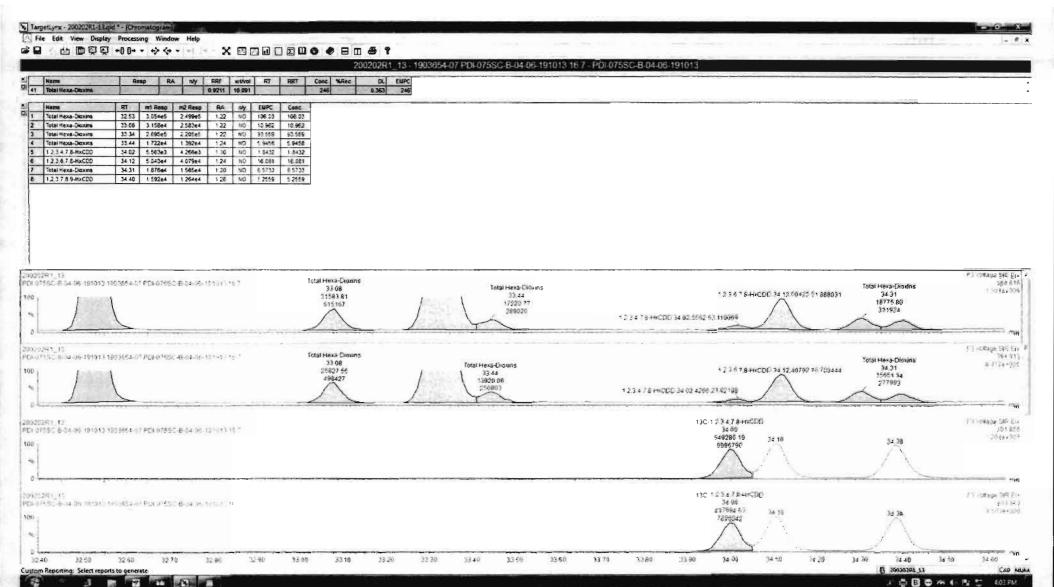


Work Order 1903654 Page 360 of 1184

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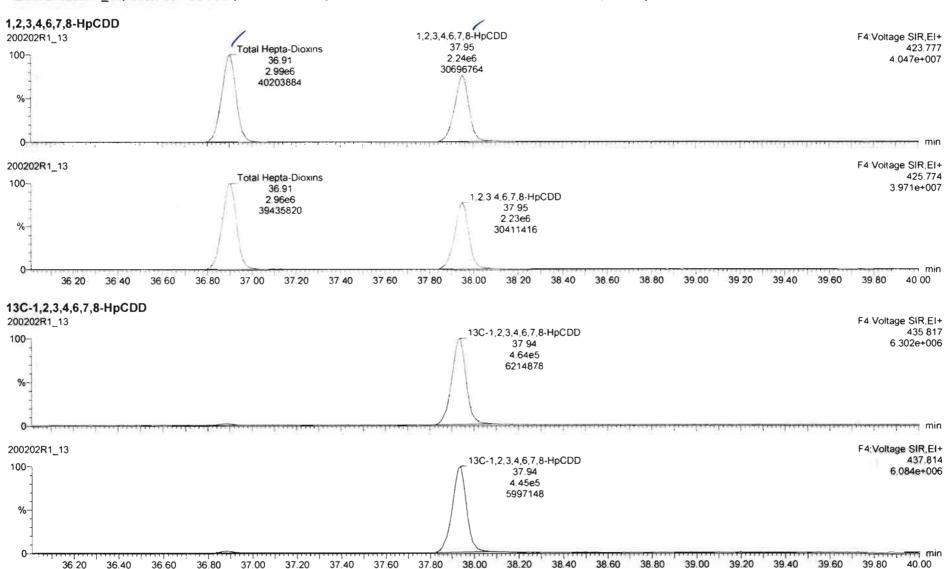




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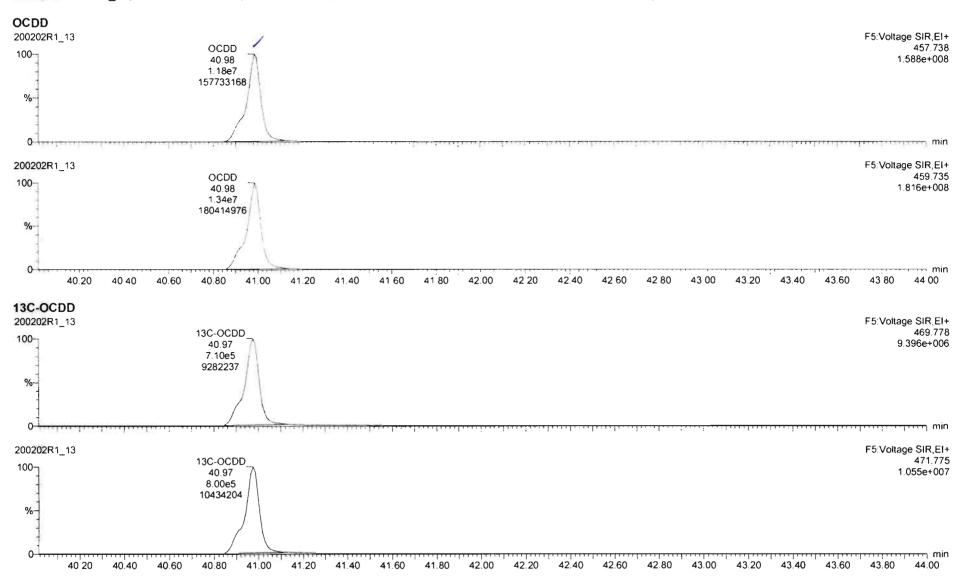
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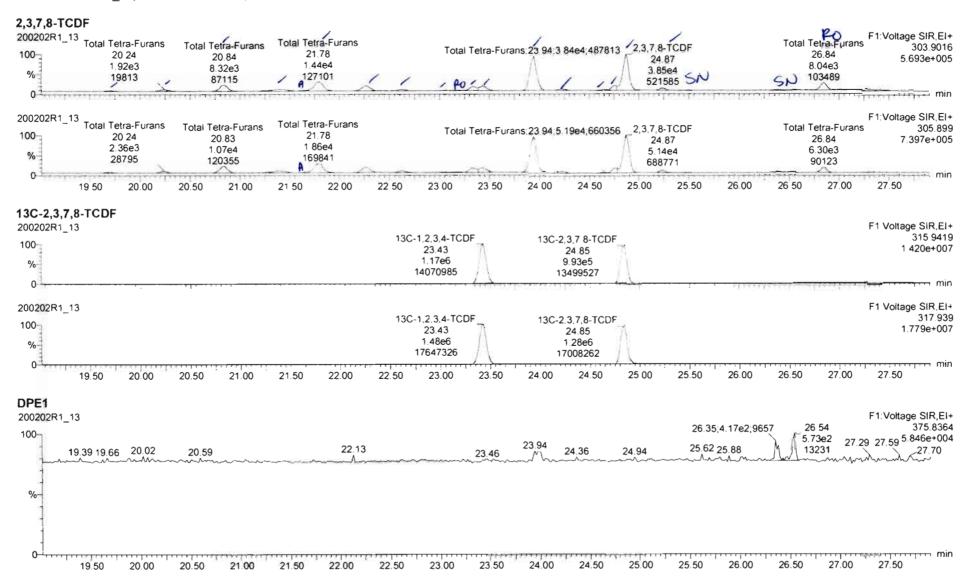
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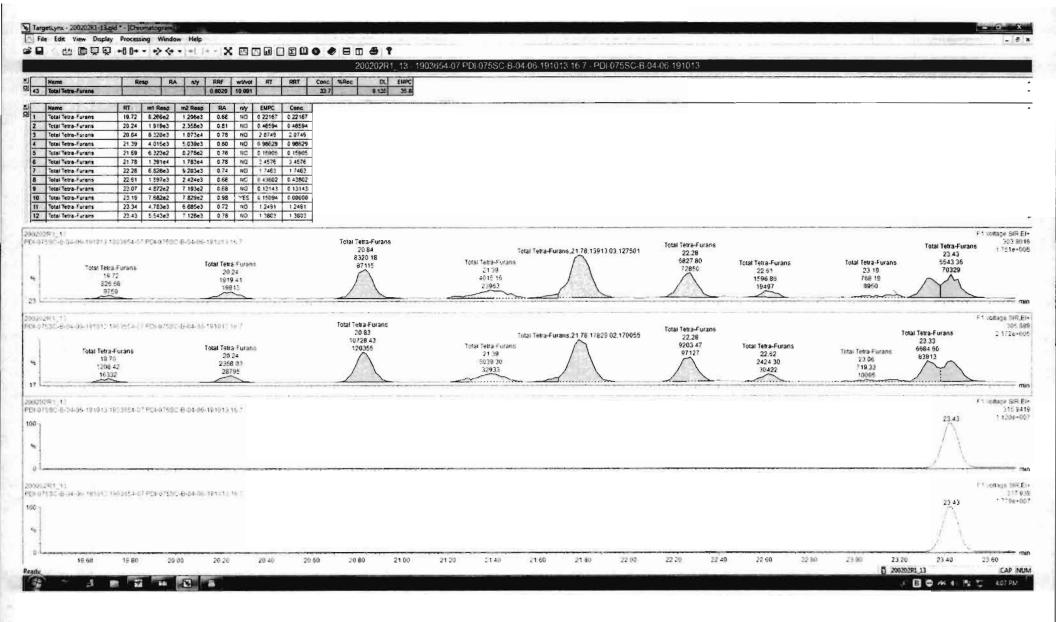
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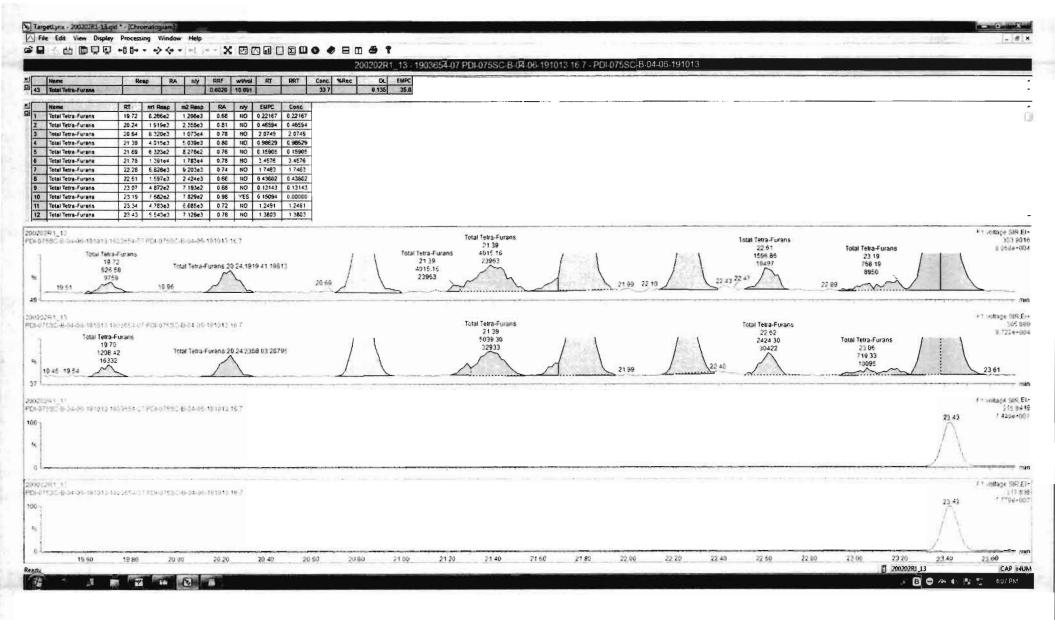


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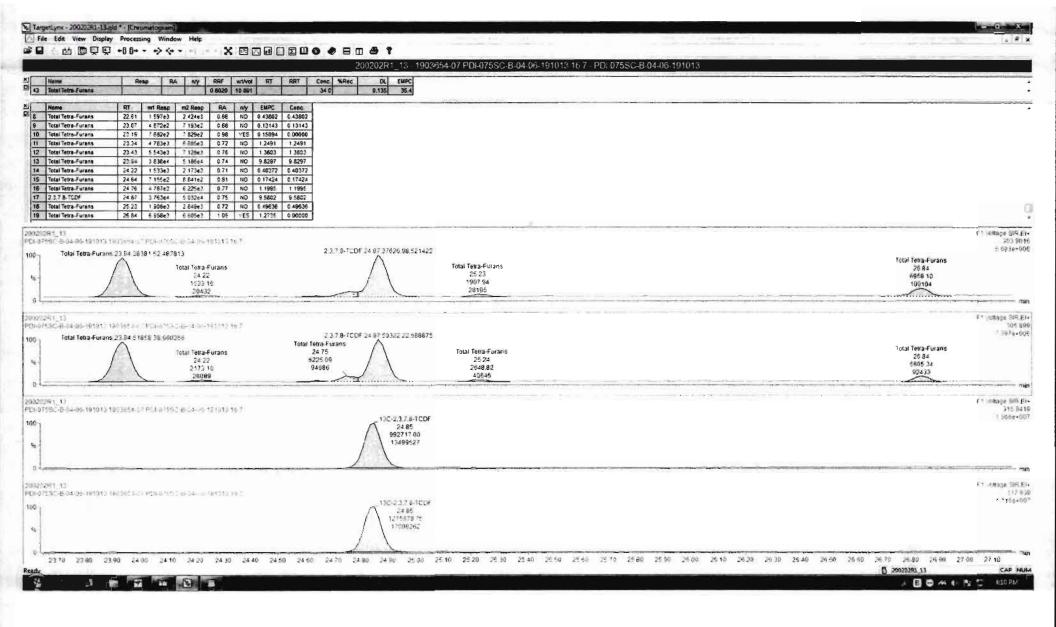
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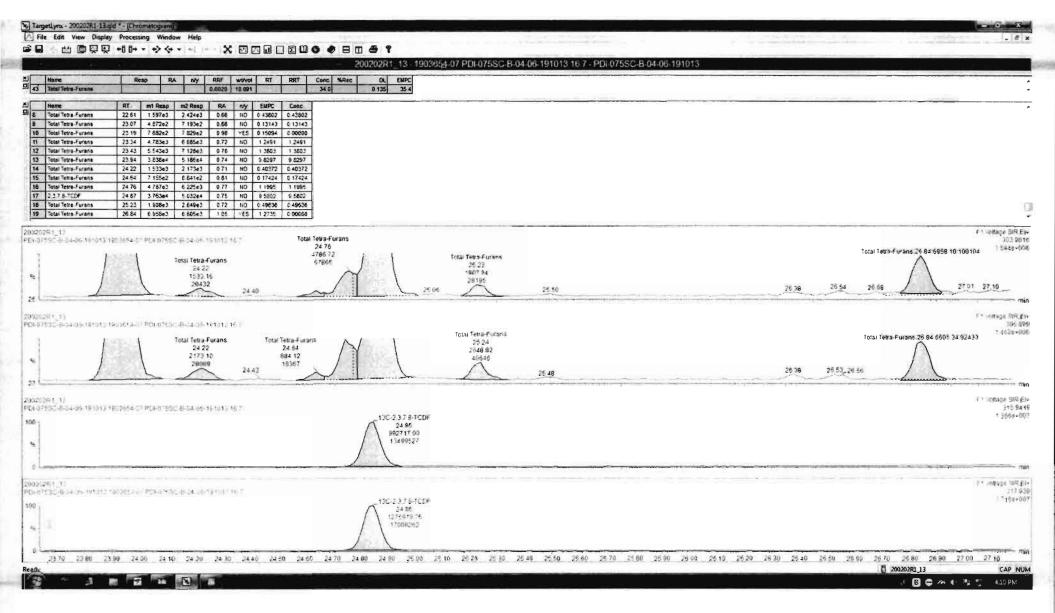






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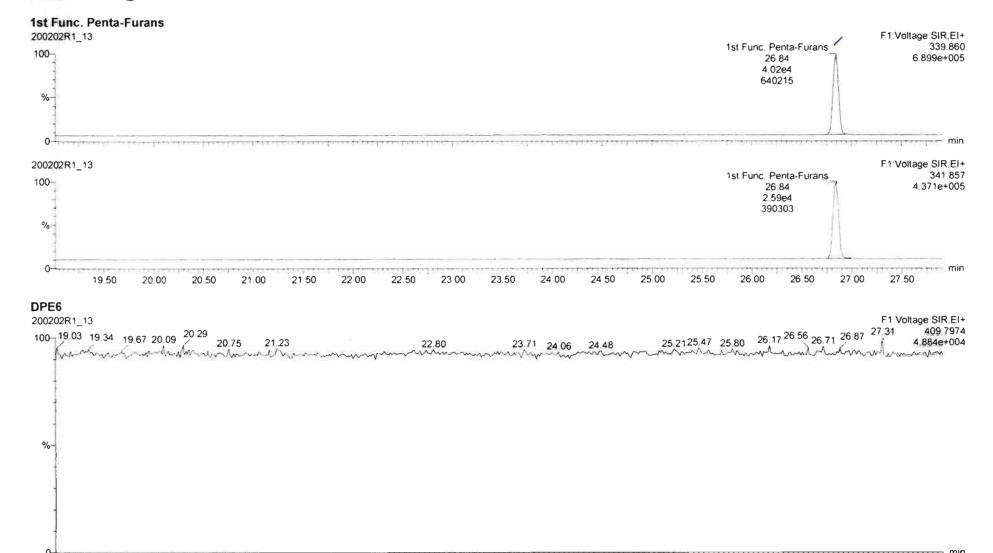




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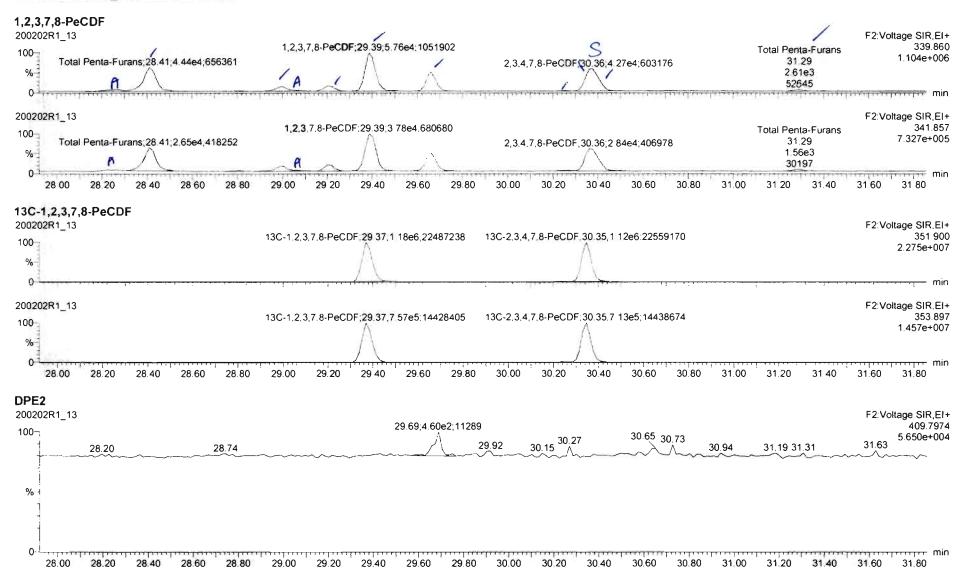
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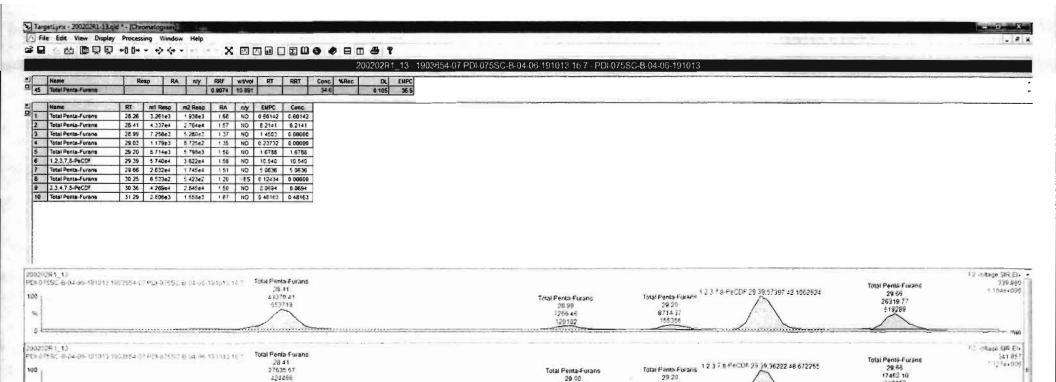
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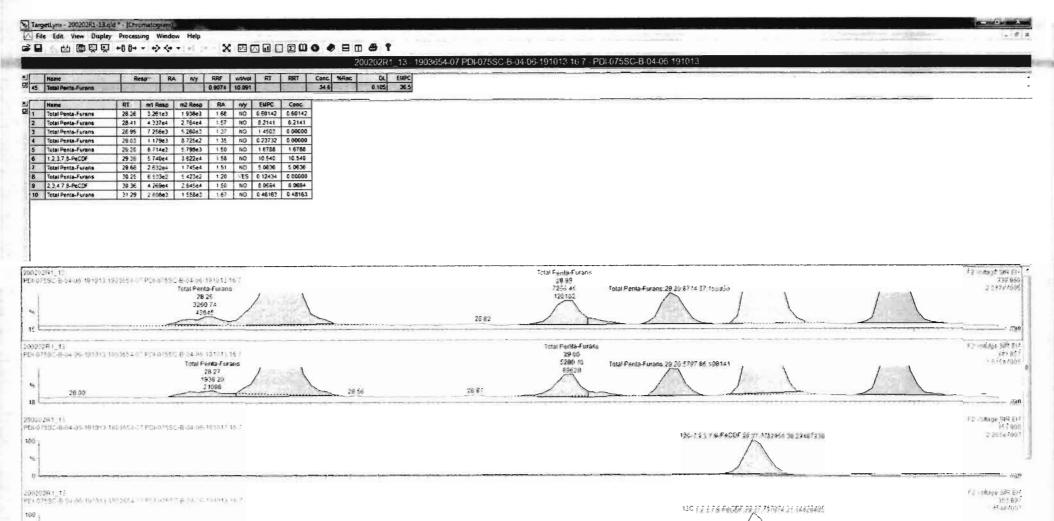
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Work Order 1903654 Page 372 of 1184



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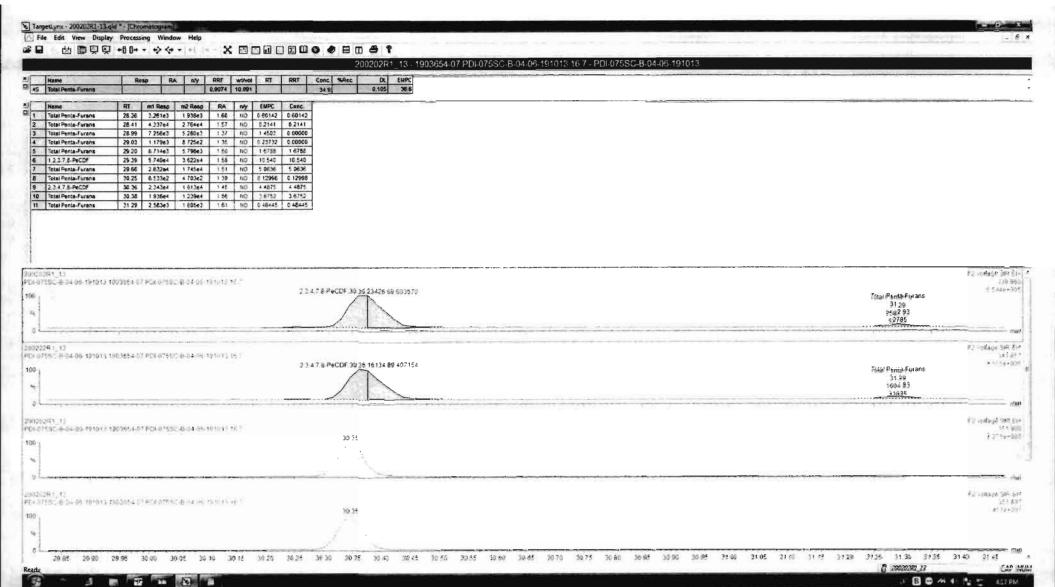
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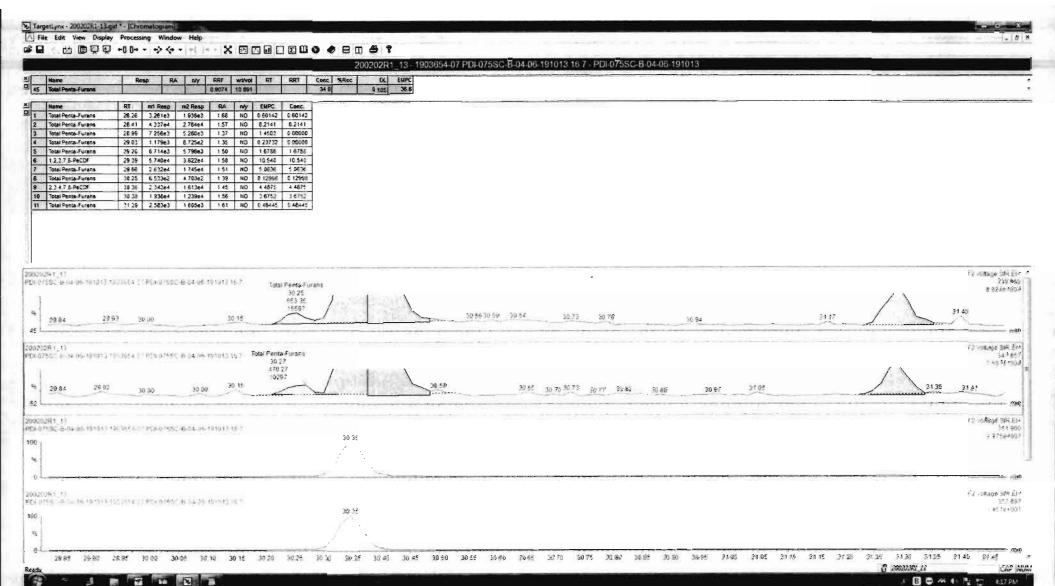
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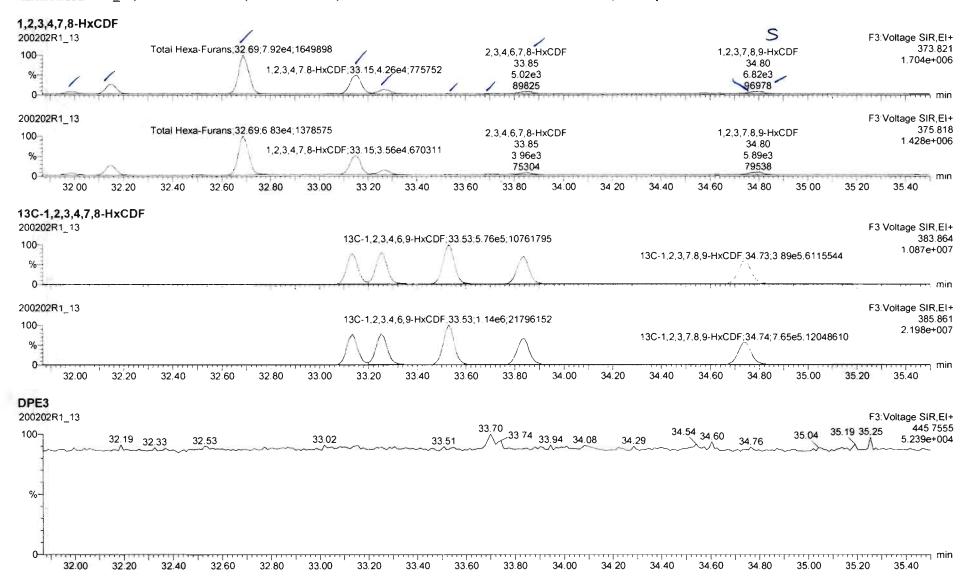
Work Order 1903654 Page 374 of 1184

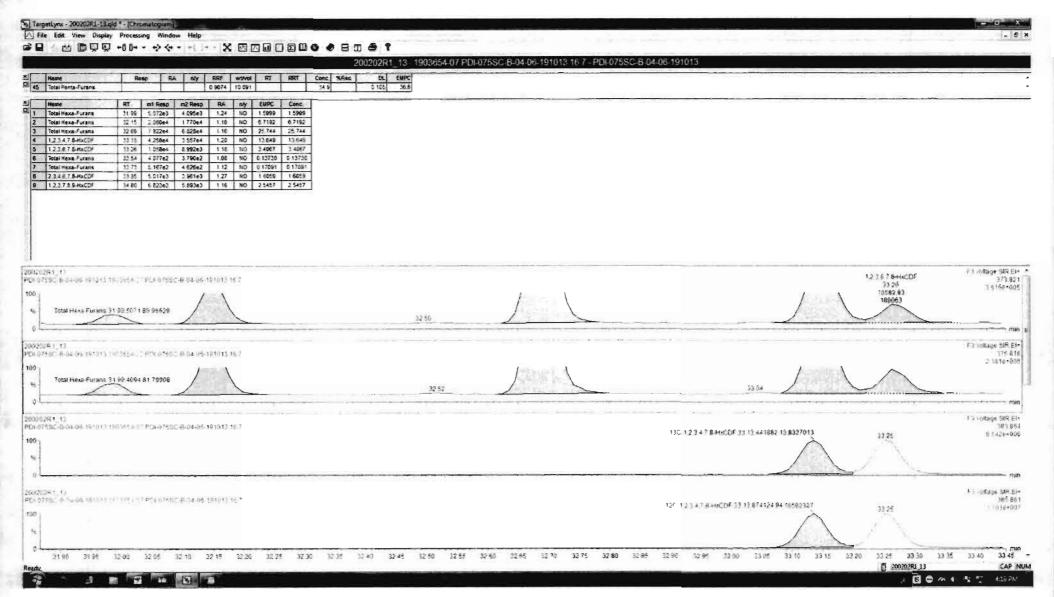


Work Order 1903654 Page 375 of 1184

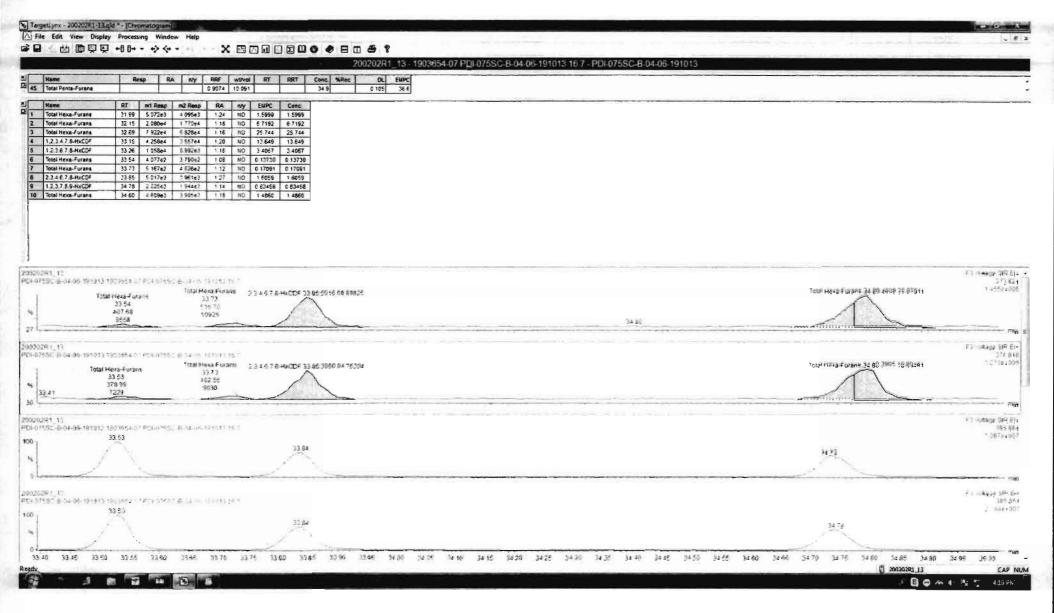
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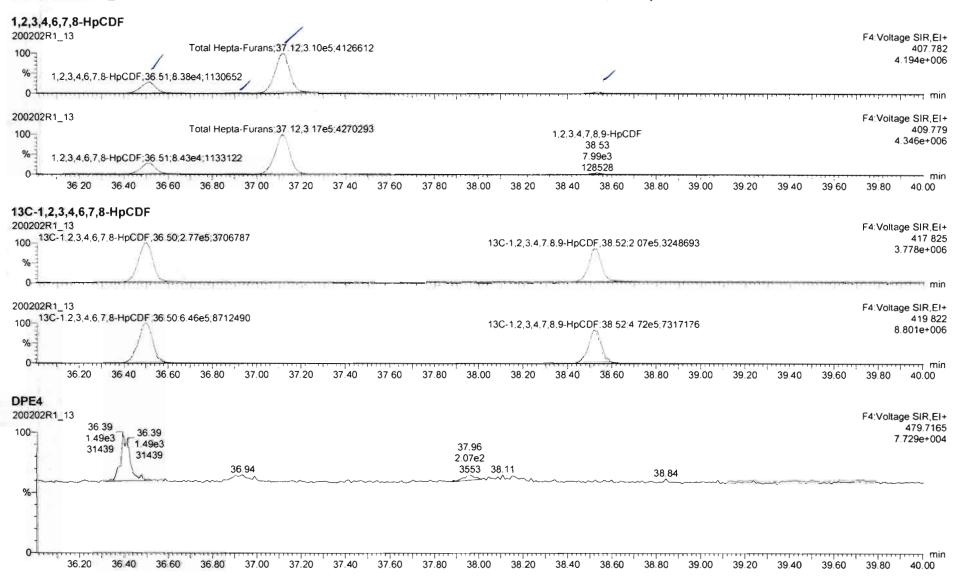


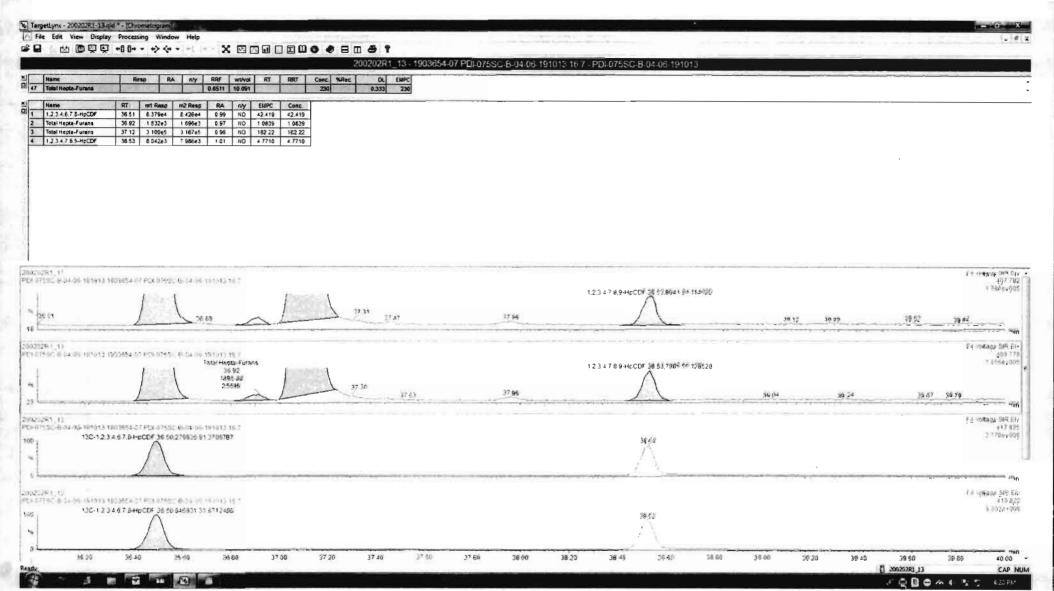
Work Order 1903654 Page 377 of 1184



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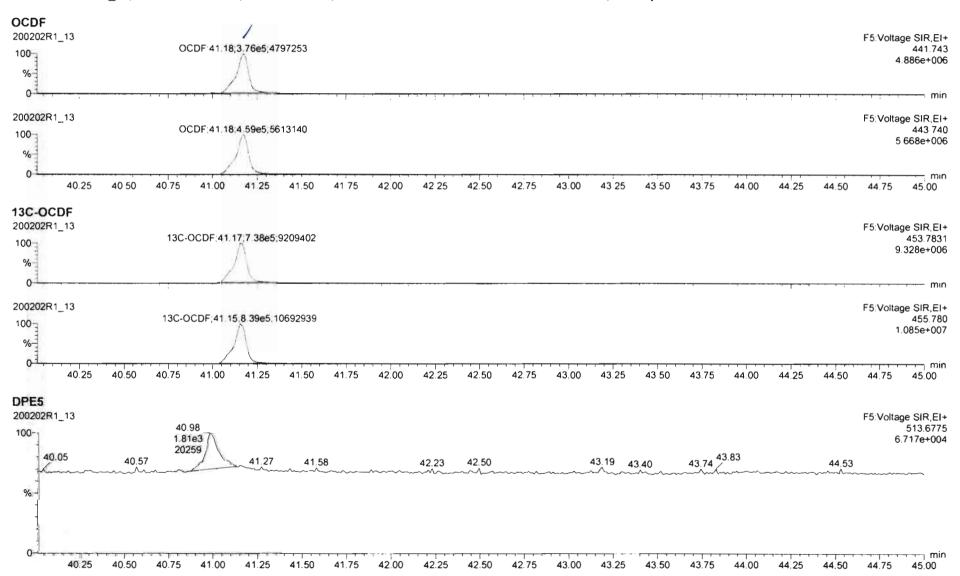




Work Order 1903654 Page 380 of 1184

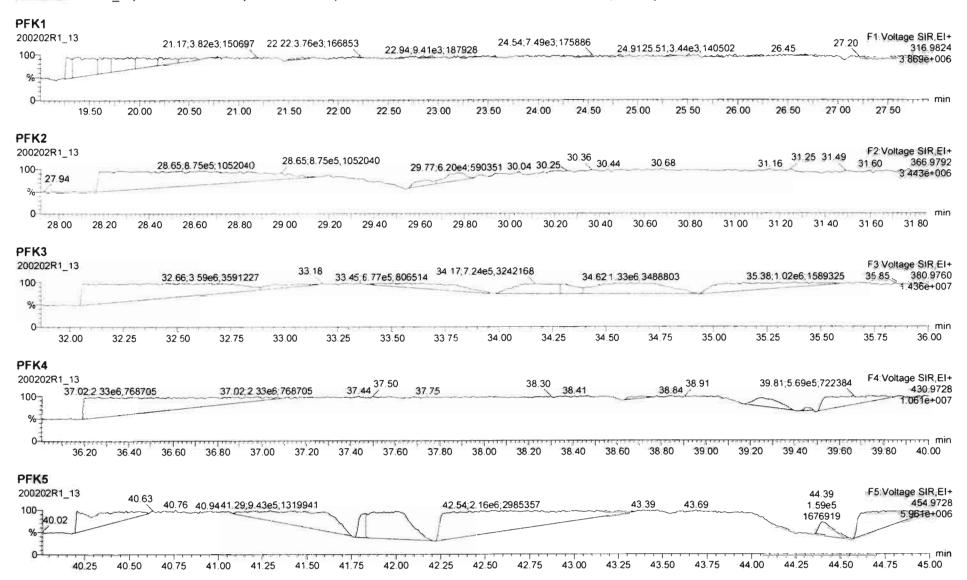
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Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time



Page 1 of 1

Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-11.qld

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Tuesday, February 04, 2020 08:28:32 Pacific Standard Time Tuesday, February 11, 2020 16:23:00 Pacific Standard Time

C1 03/13/2020

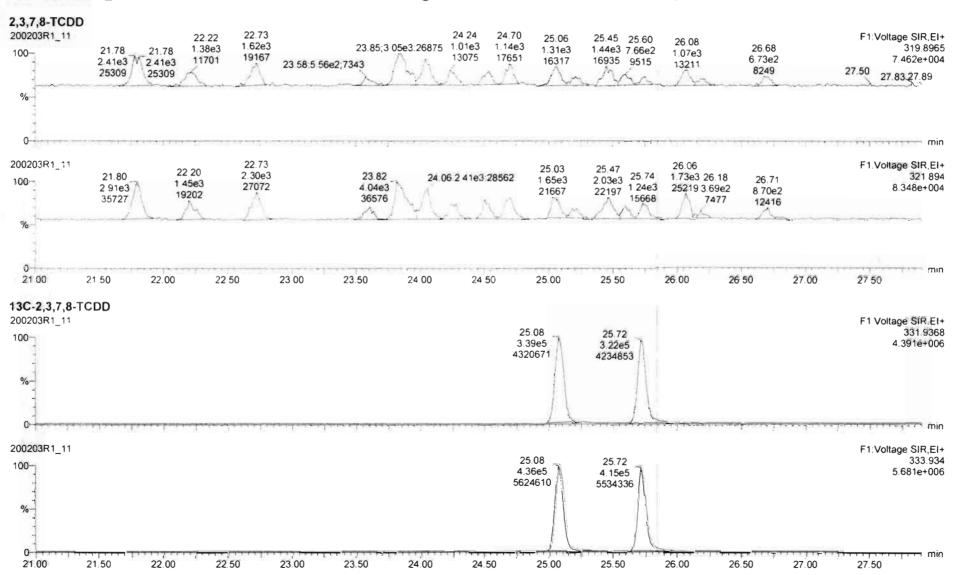
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200	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	7 OCDD	4.59e6	88.0	NO	0.975	10.091	40.932	40.94	1.000	1.000	6679.6		2.26	6680
2	24 13C-OCDD	2.79e5	0.92	NO	0.707	10.091	40.852	40.93	1.218	1.220	135.33	34.1	0.453	
3	35 37CI-2,3 7,8-TCDD	2.92e5			1.18	10.091	25.754	25.75	1.027	1.027	63.408	80.0	0.0768	
4	36 13C-1,2,3,4-TCDD	7.75e5	0 78	NO	1.00	10.091	25.080	25.08	1.000	1.000	198.19	100	0.336	-
5	37 13C-1,2,3,4-TCDF	1.13e6	0.79	NO	1.00	10.091	23.420	23.42	1.000	1.000	198.19	100	0.440	
6	38 13C-1,2,3,4,6,9-HxCDF	5.79e5	0 50	NO	1.00	10.091	33.520	33.54	1.000	1.000	198.19	100	0.617	

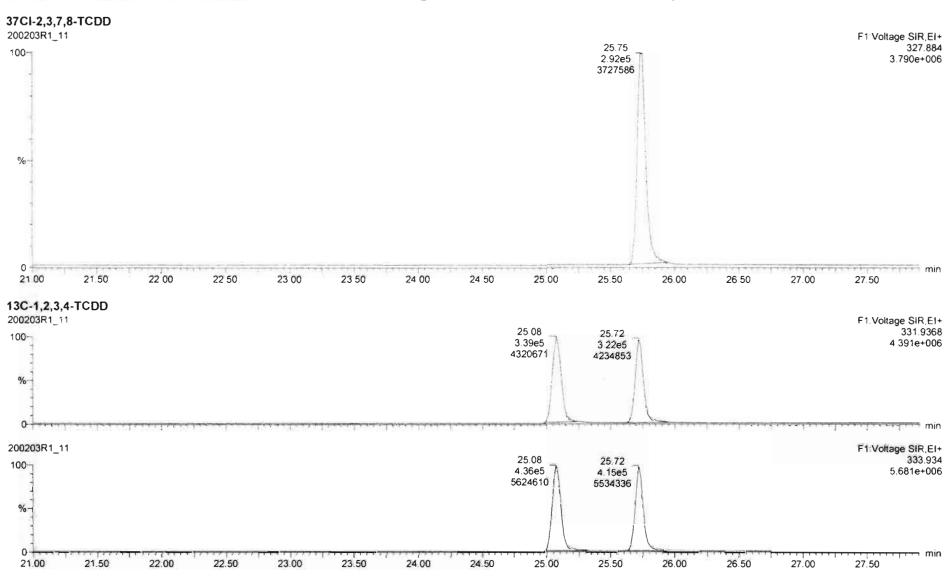
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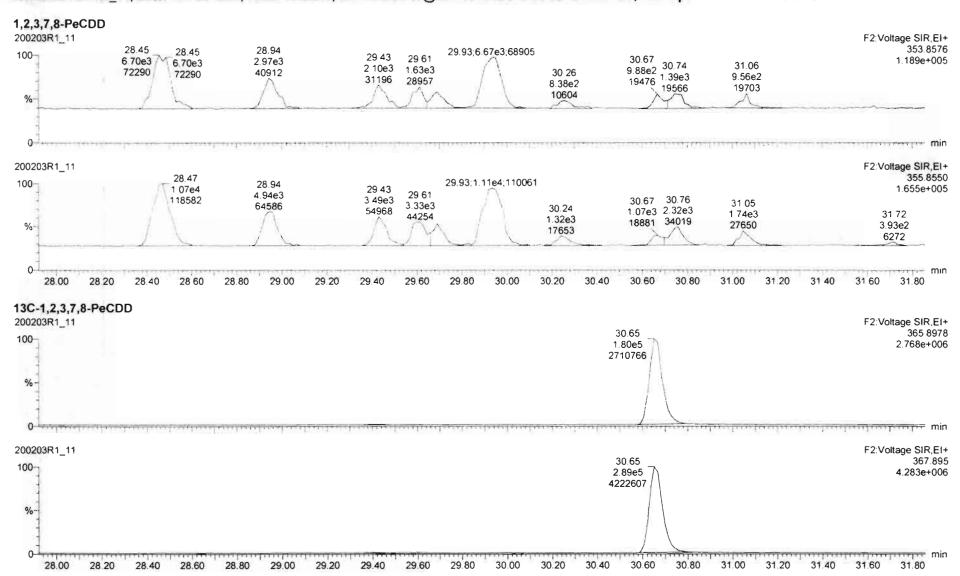
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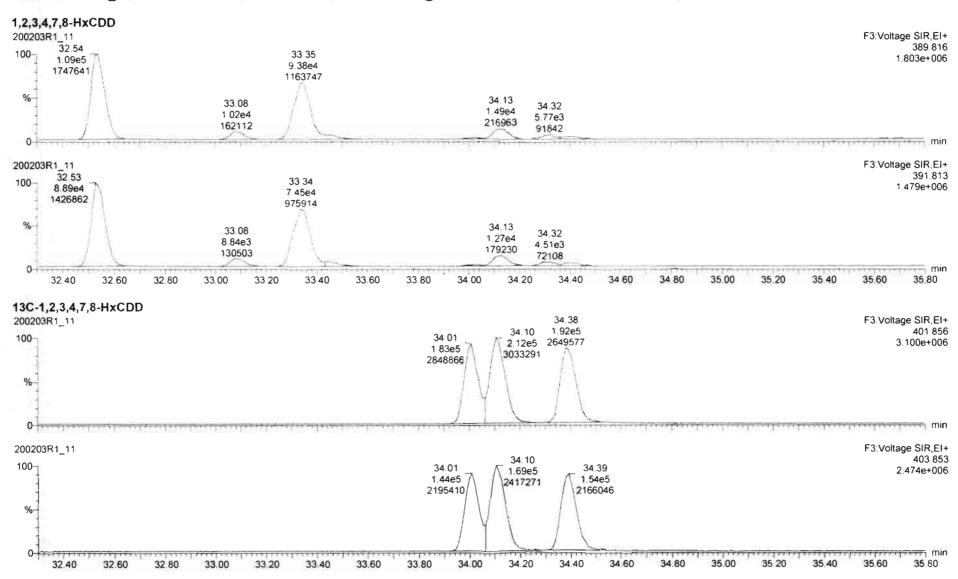
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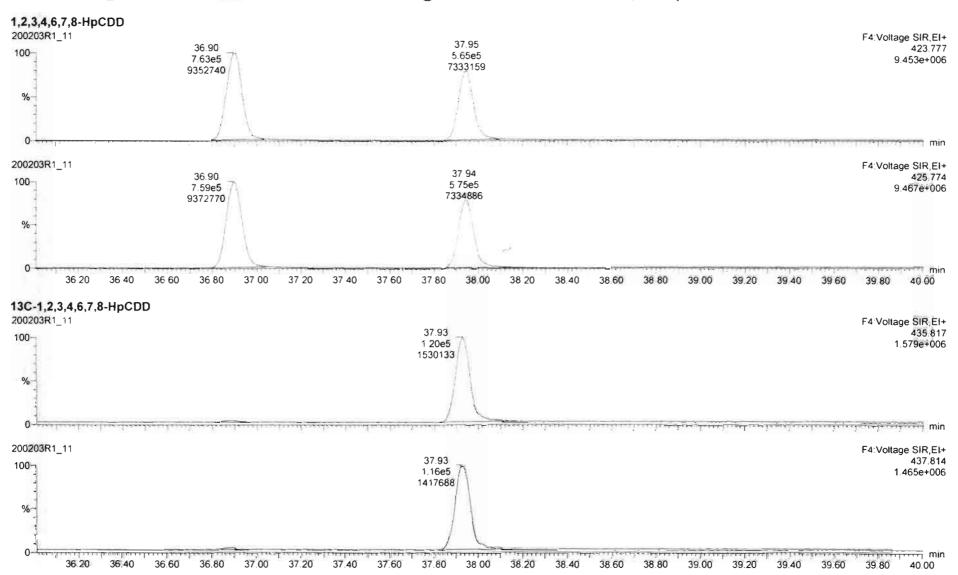
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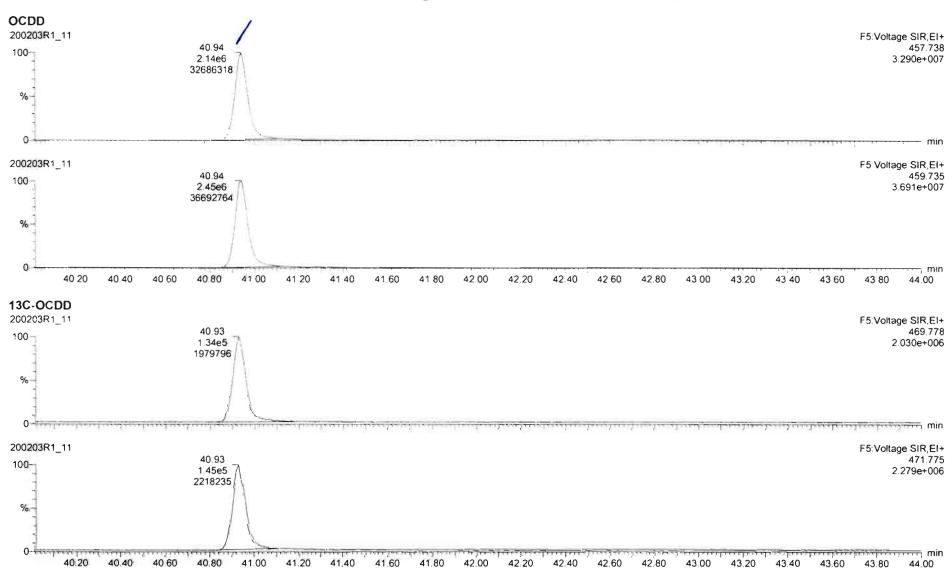
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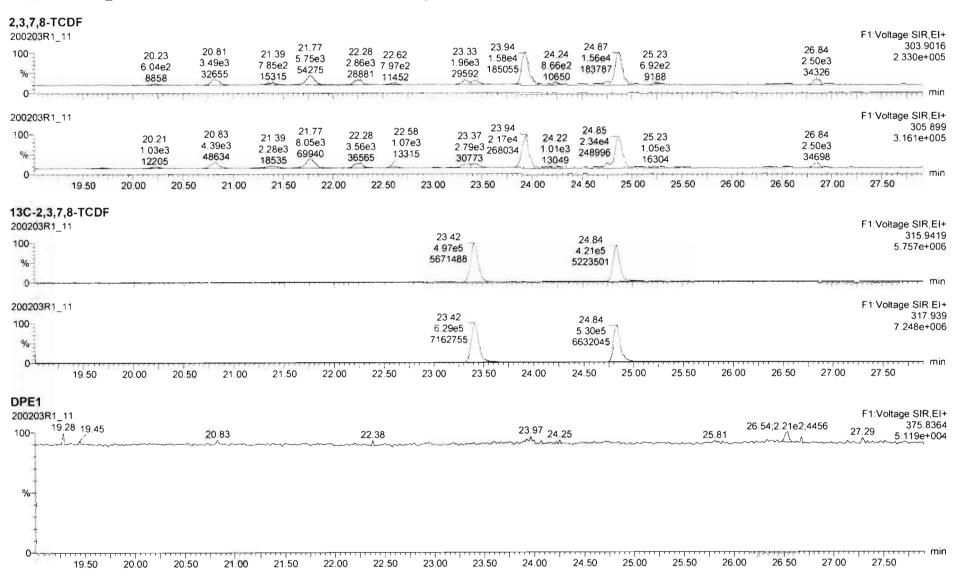
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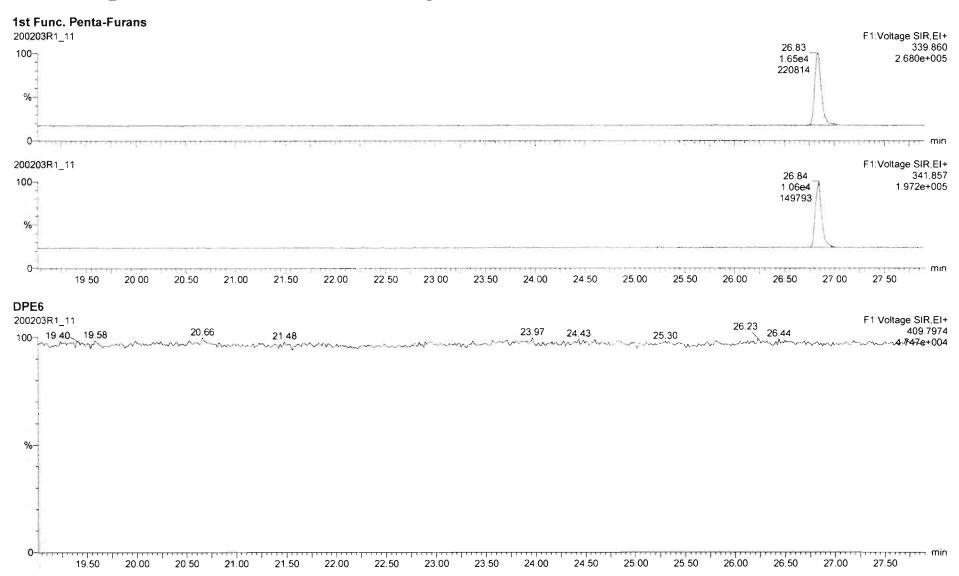
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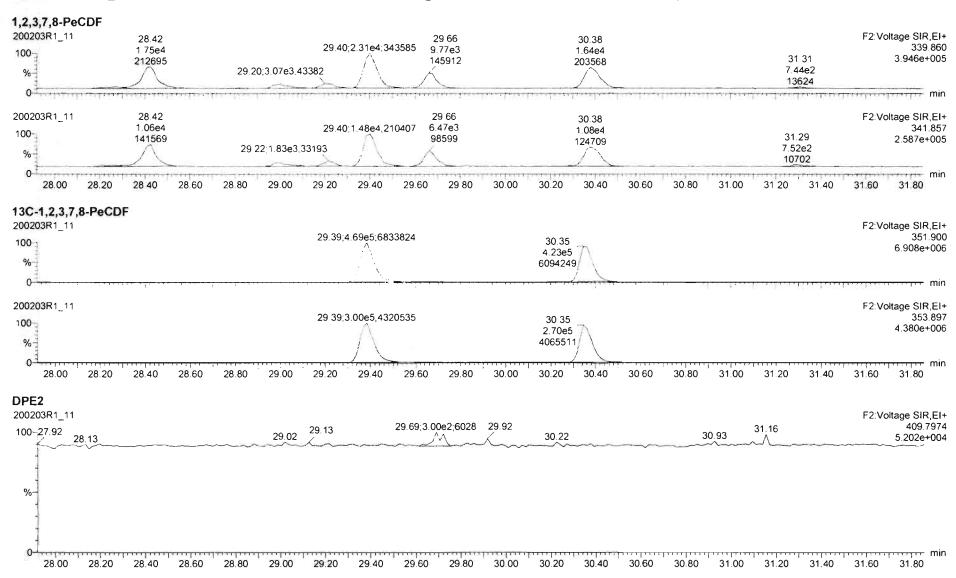
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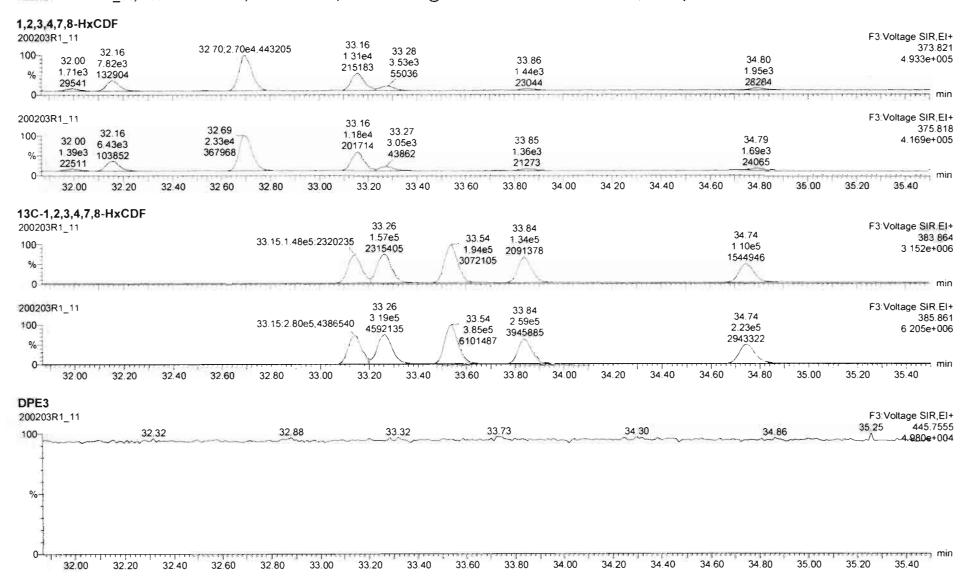
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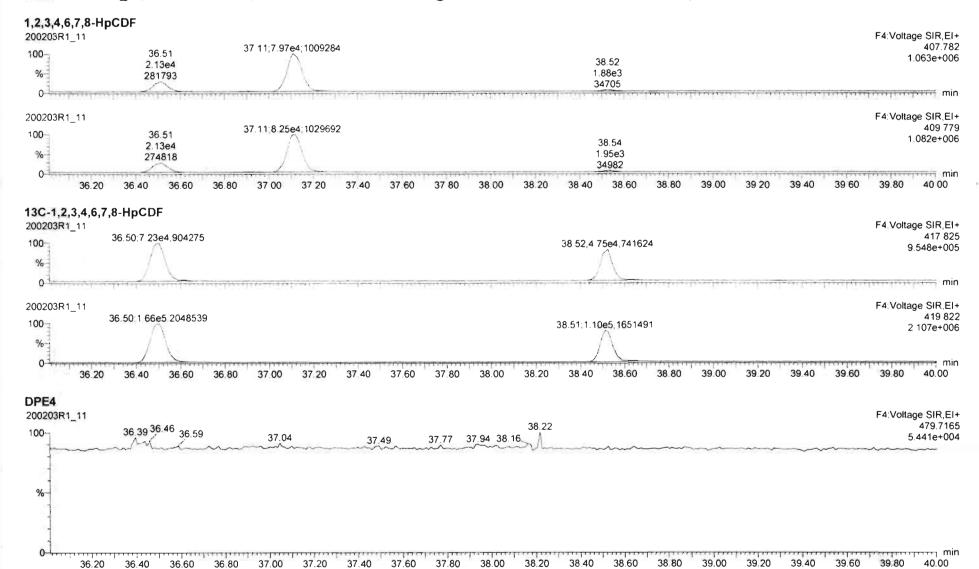
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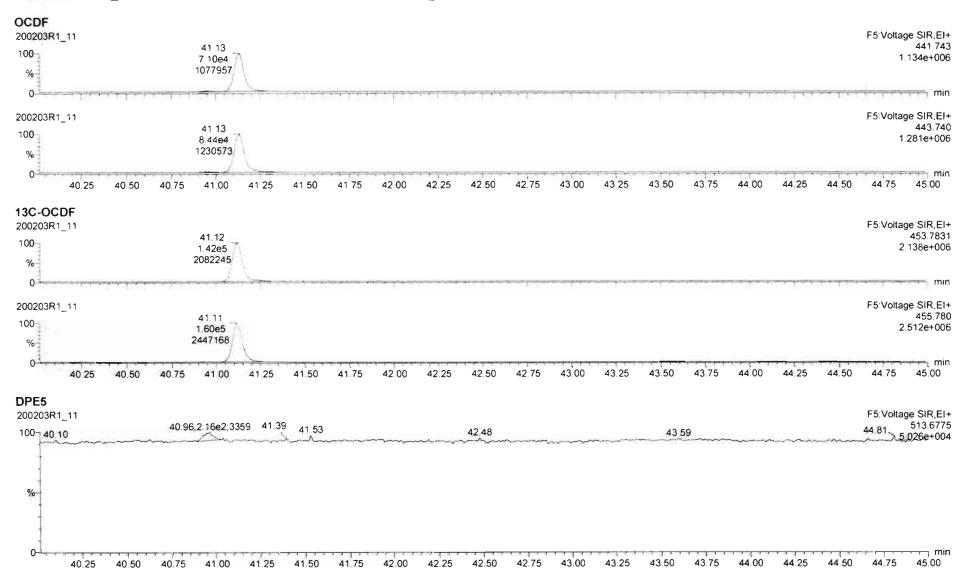
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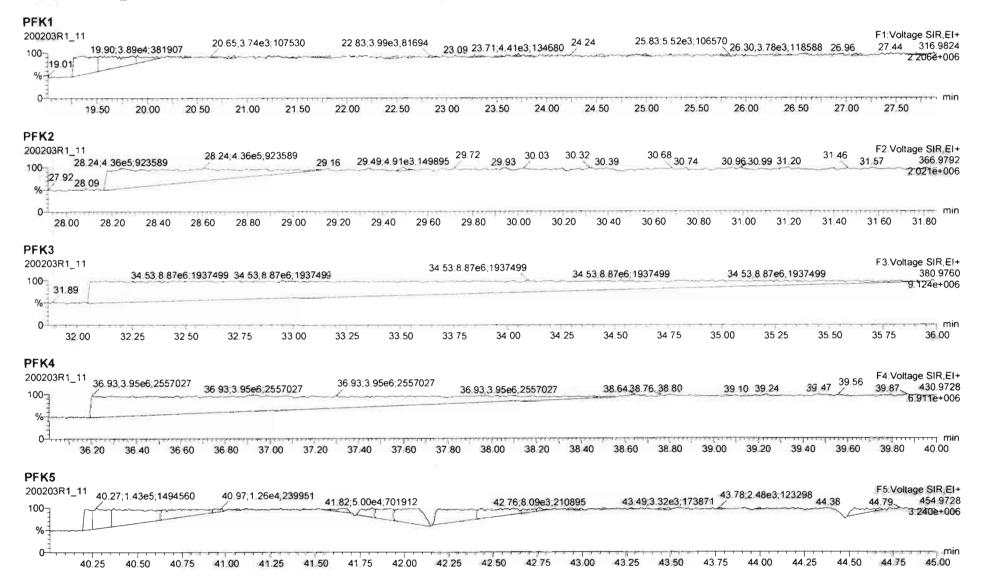
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MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-12.qld

Last Altered: Printed: Friday, February 07, 2020 11:56:47 Pacific Standard Time Friday, February 07, 2020 11:57:32 Pacific Standard Time

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Method: Untitled 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_12, Date: 02-Feb-2020, Time: 19:00:52, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

35 250	#-Name -	Resp	; RA	· n/y	; RRF	: wt/vol	: Pred.RT;	RT	Pred.RRT;	RRT ;	Conc.	· %Rec ·	DL-	EMPC
1 (3) (1) (1) (1)	1 2,3,7,8-TCDD	1.06e4	0.76	NO	0.988	10.031	25.871	25.85	1.001	1.001	1.5279		0.122	1.53
2	2 1,2,3,7,8-PeCDD	2.25e4	0.63	NO	0.972	10.031	30.688	30.68	1.001	1.000	3.7058		0.254	3.71
3 :	3 1,2,3,4,7,8-HxCDD	5.19e4	1.25	NO	1.07	10.031	34.029	34.03	1.000	1.000	9.5446		0.741	9.54
4	4 1,2,3,6,7,8-HxCDD	4.29e5	1.24	NO	0.921	10.031	34.126	34.14	1.000	1.000	82.122		0.757	82.1
5	5 1,2,3,7,8,9-HxCDD	1.30e5	1.22	NO	0.918	10.031	34.437	34.41	1.001	1.000	25.262		0.762	25.3
6	6 1,2,3,4,6,7,8-HpCDD	2.31e7	1.00	NO	0.923	10.031	37.982	37.98	1.000	1.000	5212.7 5	*	2.91	5210
7	7 OCDD	1.19e8	0.88	NO	0.975	10.031	41.091	41.10	1.000	1.000	34787 €	*	1.27	34800
8	8 2,3,7,8-TCDF	4.52e5	0.75	NO	0.802	10.031	24.967	24.97	1.001	1.001	67.763 (64.5)	0.155	67.8
9	9 1,2,3,7,8-PeCDF	8.77e5	1.54	NO	0.907	10.031	29.452	29.45	1.001	1.001	110.36	- /	0.253	110
10	10 2,3,4,7,8-PeCDF	3.30e5	1.50	NO	0.952	10.031	30.374	30.39	1.000	1.001	41.341		0.219	41.3
11 ;	11 1,2,3,4,7,8-HxCDF	8.92e5	1.17	NO	0.862	10.031	33.157	33.17	1.000	1.000	164.02		0.319	164
12	12 1,2,3,6,7,8-HxCDF	2.48e5	1.17	NO	0.841	10.031	33.284	33.28	1.000	1.000	45.290		0.304	45.3
13	13 2,3,4,6,7,8-HxCDF	9.14e4	1.20	NO	0.898	10.031	33.883	33.87	1.001	1.001	17.032		0.353	17.0
14	14 1,2,3,7,8,9-HxCDF	1.98e4	1.07	NO	0.858	10.031	34.754	34.78	1.000	1.001	4.2950		0.426	4.29
15	15 1,2,3,4,6,7,8-HpCDF	9.88e5	0.98	NO	0.851	10.031	36.559	36.54	1.001	1.001	258.98		0.702	259
16	16 1,2,3,4,7,8,9-HpCDF	1.32e5	0.99	NO	0.980	10.031	38.556	38.57	1.000	1.000	39.828		0.750	39.8
17	17 OCDF	3.90e6	0.85	NO	0.806	10.031	41.272	41.28	1.000	1.000	1336.2		0.416	1340
18 ;	18 13C-2,3,7,8-TCDD	1.39e6	0.78	NO	1.20	10.031	25.814	25.84	1.026	1.027	121.34	60.9	0.145	
19 ;	19 13C-1,2,3,7,8-PeCDD	1.24e6	0.63	NO	0.967	10.031	30.578	30.67	1.215	1.219	134.29	67.4	0.239	
20	20 13C-1,2,3,4,7,8-HxCDD	1.01e6	1.26	NO	0.874	10.031	34.010	34.02	1.014	1.014	129.55	65.0	0.291	
21	21 13C-1,2,3,6,7,8-HxCDD	1.13e6	1.28	NO	1.05	10.031	34.110	34.13	1.017	1.017	120.99	60.7	0.244	Ì
22	22 13C-1,2,3,7,8,9-HxCDD	1.12e6	1.25	NO	0.974	10.031	34.412	34.40	1.026	1.026	128.18	64.3	0.261	1
23	23 13C-1,2,3,4,6,7,8-HpCDD	9.57e5	1.06	NO	0.747	10.031	37.967	37.97	1.132	1.132	143.18	71.8	0.292	
24	24 13C-OCDD	1.40e6	0.91	NO	0.707	10.031	40.852	41.09	1.218	1.225	221.40	55.5	0.248	
25	25 13C-2,3,7,8-TCDF	1.66e6	0.77	NO	1.07	10.031	24.991	24.94	0.993	0.991	109.67	55.0	0.259	
26	26 13C-1,2,3,7,8-PeCDF	1.75e6	1.58	NO	1.00	10.031	29.345	29.43	1.166	1.169	122.79	61.6	0.353	
27	27 13C-2,3,4,7,8-PeCDF	1.67e6	1.58	NO	0.962	10.031	30.301	30.38	1.204	1.207	122.53	61.5	0.368	
28	28 13C-1,2,3,4,7,8-HxCDF	1.26e6	0.51	NO	1.05	10.031	33.138	33.16	0.988	0.989	133.91	67.2	0.302	
29	29 13C-1,2,3,6,7,8-HxCDF	1.30e6	0.52	NO	1.19	10.031	33.238	33.27	0.991	0.992	122.04	61.2	0.267	
30	30 13C-2,3,4,6,7,8-HxCDF	1.19e6	0.51	NO	1.07	10.031	33.845	33.85	1.009	1.009	124.87	62.6	0.297	
31	31 13C-1,2,3,7,8,9-HxCDF	1.07e6	0.51	NO	0.922	10.031	34.747	34.75	1.036	1.036	130.06	65.2	0.344	

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Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200202R1\200202R1-12.qld

Last Altered: Friday, February 07, 2020 11:56:47 Pacific Standard Time Friday, February 07, 2020 11:57:32 Pacific Standard Time

Name: 200202R1_12, Date: 02-Feb-2020, Time: 19:00:52, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

	#-Name	- Resp	; RA	- n/y	RRF	; wt/vol	Pred.RT;	RT	: Pred.RRT:	RRT :	Conc.	- %Rec -	DL-	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	8.94e	0.44	NO	0.767	10.031	36.492	36.52	1.088	1.089	130.30	65.4	0.273	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.75e	0.42	NO	0.552	10.031	38.504	38.56	1.148	1.150	136.56	68.5	0.379	
34	34 13C-OCDF	1.45e6	0.87	NO	0.789	10.031	41.087	41.27	1.225	1.231	204.77	51.4	0.178	
35	35 37Cl-2,3,7,8-TCDD	5.52e	;		1.18	10.031	25.847	25.85	1.027	1.027	48.984	61.4	0.0568	
36	36 13C-1,2,3,4-TCDD	1.91e	0.79	NO	1.00	10.031	25.080	25.17	1.000	1.000	199.38	100	0.174	
37	37 13C-1,2,3,4-TCDF	2.83e6	0.79	NO	1.00	10.031	23.420	23.57	1.000	1.000	199.38	100	0.276	
38	38 13C-1,2,3,4,6,9-HxCDF	1.78e	0.51	NO	1.00	10.031	33.520	33.54	1.000	1.000	199.38	100	0.317	
39	39 Total Tetra-Dioxins				0.988	10.031	24.620		0.000		41.615		0.122	41.8
40	40 Total Penta-Dioxins				0.972	10.031	29.960		0.000		98.069		0.254	98.1
41	41 Total Hexa-Dioxins				0.921	10.031	33.635		0.000		1244.6		0.790	1240
42	42 Total Hepta-Dioxins				0.923	10.031	37.640		0.000		12355		2.91	12400
43	43 Total Tetra-Furans				0.802	10.031	23.610		0.000		209.03		0.155	209
	44 1st Func. Penta-Furans				0.907	10.031	27.090		0.000		57.496		0.0494	57.5
45	45 Total Penta-Furans				0.907	10.031	29.275		0.000		348.62		0.242	349
46	46 Total Hexa-Furans				0.898	10.031	33.555		0.000		477.28		0.334	478
47	47 Total Hepta-Furans				0.851	10.031	37.835		0.000		1315.0		0.772	1320

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Vista Analytical Laboratory

Dataset: U

U:\VG12.PRO\Results\200202R1\200202R1-12.qld

Last Altered: Printed: Friday, February 07, 2020 11:56:47 Pacific Standard Time Friday, February 07, 2020 11:57:32 Pacific Standard Time

Method: Untitled 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_12, Date: 02-Feb-2020, Time: 19:00:52, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

Tetra-Dioxins

Name	; RT ;	m1 Height; n	n2 Height ;	m1 Resp;	m2 Resp	RA:	n/y	Resp	Conc.	EMPC;	DL
1 Total Tetra-Dioxins	22.05	1.712e5	2.275e5	1.802e4	2.336e4	0.77	NO	4.138e4	5.9895	5.9895	0.122
2 Total Tetra-Dioxins	22.52	6.317e4	7.440e4	8.616e3	1.101e4	0.78	NO	1.962e4	2.8401	2.8401	0.122
3 Total Tetra-Dioxins	22.88	1.339e5	1.758e5	8.601e3	1.098e4	0.78	NO	1.958e4	2.8336	2.8336	0.122
4 Total Tetra-Dioxins	23.75	4.971e4	7.375e4	3.766e3	5.123e3	0.74	NO	8.889e3	1.2866	1.2866	0.122
5 Total Tetra-Dioxins	24.03	1.702e5	1.975e5	1.591e4	2.005e4	0.79	NO	3.597e4	5.2058	5.2058	0.122
6 Total Tetra-Dioxins	24.16	1.419e5	1.919e5	9.708e3	1.290e4	0.75	NO	2.261e4	3.2729	3.2729	0.122
7 Total Tetra-Dioxins	24.36	7.008e4	9.395e4	5.383e3	6.939e3	0.78	NO	1.232e4	1.7835	1.7835	0.122
8 Total Tetra-Dioxins	24.61	5.528e4	6.797e4	4.324e3	5.407e3	0.80	NO	9.731e3	1.4086	1.4086	0.122
9 Total Tetra-Dioxins	24.79	1.229e5	1.483e5	9.477e3	1.177e4	0.80	NO	2.125e4	3.0758	3.0758	0.122
10 Total Tetra-Dioxins	25.15	1.189e5	1.421e5	8.625e3	1.057e4	0.82	NO	1.920e4	2.7786	2.7786	0.122
11 Total Tetra-Dioxins	25.29	4.721e4	6.244e4	3.383e3	4.401e3	0.77	NO	7.784e3	1.1267	1.1267	0.122
12 Total Tetra-Dioxins	25.57	9.313e4	1.304e5	1.018e4	1.310e4	0.78	NO	2.328e4	3.3702	3.3702	0.122
13 Total Tetra-Dioxins	25.70	7.373e4	9.874e4	5.096e3	6.697e3	0.76	NO	1.179e4	1.7070	1.7070	0.122
14 2,3,7,8-TCDD	25.85	5.630e4	7.707e4	4.558e3	5.997e3	0.76	NO	1.056e4	1.5279	1.5279	0.122
15 Total Tetra-Dioxins	26.15	1.441e5	1.824e5	8.279e3	1.094e4	0.76	NO	1.922e4	2.7815	2.7815	0.122
16 Total Tetra-Dioxins	26.29	3.185e4	3.555e4	1.853e3	2.479e3	0.75	NO	4.332e3	0.62699	0.62699	0.122
17 Total Tetra-Dioxins	26.75	2.639e4	4.258e4	5.772e2	9.064e2	0.64	YES	0.000e0	0.00000	0.19204	0.122

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-12.qld

Last Altered: Printed: Friday, February 07, 2020 11:56:47 Pacific Standard Time Friday, February 07, 2020 11:57:32 Pacific Standard Time

Name: 200202R1_12, Date: 02-Feb-2020, Time: 19:00:52, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

Penta-Dioxins

	; Name ;	RT :	m1 Height	m2 Height ;	m1 Resp;	m2 Resp	- RA	n/y	Resp	Conc.	EMPC:	DL
1	Total Penta-Dioxins	28.52	7.723e5	1.25 9e 6	5.685e4	9.396e4	0.61	NO	1.508e5	24.853	24.853	0.254
2	Total Penta-Dioxins	28.97	4.650e5	7.881e5	2.617e4	4.167e4	0.63	NO	6.784e4	11.179	11.179	0.254
3	Total Penta-Dioxins	29.48	3.758e5	5.834e5	2.257e4	3.419e4	0.66	NO	5.676e4	9.3531	9.3531	0.254
4	Total Penta-Dioxins	29.65	2.953e5	4.722e5	1.597e4	2.652e4	0.60	NO	4.249e4	7.0020	7.0020	0.254
5	Total Penta-Dioxins	29.74	2.703e5	3.911e5	1.440e4	2.225e4	0.65	NO	3.665e4	6.0389	6.0389	0.254
6	Total Penta-Dioxins	29.98	7.009e5	1.202e6	5.519 e 4	8.911e4	0.62	NO	1.443e5	23.779	23.779	0.254
7	Total Penta-Dioxins	30.27	1.320e5	1.956e5	7.103e3	1.160e4	0.61	NO	1.870e4	3.0822	3.0822	0.254
8	1,2,3,7,8-PeCDD	30.68	1.652e5	2.547e5	8.668e3	1.382e4	0.63	NO	2.249e4	3.7058	3.7058	0.254
9	Total Penta-Dioxins	30.76	2.630e5	4.142e5	1.331e4	2.027e4	0.66	NO	3.358e4	5.5339	5.5339	0.254
10	Total Penta-Dioxins	31.06	1.726e5	2.704e5	8.372e3	1.312e4	0.64	NO	2.149e4	3.5420	3.5420	0.254

Hexa-Dioxins

Name	: RT :	m1 Height; m2 Height;	m1 Resp; m2 Resp	RA n/y	Resp .	Conc.	EMPC:	DL
1 Total Hexa-Dioxins	32.54	2.958e7 2.447e7	1.490e6 1.214e6	1.23 NO	2.703e6	538.20	538.20	0.790
2 Total Hexa-Dioxins	33.10	2.966e6 2.471e6	1.549e5 1.249e5	1.24 NO	2.797e5	55.695	55.695	0.790
3 Total Hexa-Dioxins	33.35	1.941e7 1.575e7	1.296e6 1.058e6	1.22 NO	2.354e6	468.74	468.74	0.790
4 Total Hexa-Dioxins	33.47	1.463e6 1.194e6	9.130e4 7.366e4	1.24 NO	1.650e5	32.843	32.843	0.790
5 1,2,3,4,7,8-HxCDD	34.03	4.919e5 3.910e5	2.889e4 2.302e4	1.25 NO	5.191e4	9.5446	9.5446	0.741
6 1,2,3,6,7,8-HxCDD	34.14	4.045e6 3.321e6	2.373e5 1.920e5	1.24 NO	4.294e5	82.122	82.122	0.757
7 Total Hexa-Dioxins	34.33	1.450e6 1.189e6	8.841e4 7.339e4	1.20 NO	1.618e5	32.213	32.213	0.790
8 1,2,3,7,8,9-HxCDD	34.41	1.235e6 9.881e5	7.155e4 5.842e4	1.22 NO	1.300e5	25.262	25.262	0.762

Hepta-Dioxins

Name	; RT ;	m1 Height; m2 Height;	m1 Resp; m2 Resp	RA n/y	Resp	Conc.	EMPC;	DL
1 Total Hepta-Dioxins	36.94	1.874e8 1.853e8	1.595e7 1.570e7	1.02 NO	3.164e7	7142.1	7142.1	2.91
2 1,2,3,4,6,7,8-HpCDD	37.98	1.396e8 1.394e8	1.157e7 1.152e7	1.00 NO	2.309e7	5212.7	5212.7	2.91

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Quantify Totals Report MassLynx 4.1 SCN815 Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200202R1\200202R1-12.qld

Friday, February 07, 2020 11:56:47 Pacific Standard Time Last Altered: Friday, February 07, 2020 11:57:32 Pacific Standard Time Printed:

Name: 200202R1_12, Date: 02-Feb-2020, Time: 19:00:52, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

Tetra-Furans

	Name	: RT :	m1 Height	m2 Height ;	m1 Resp;	m2 Resp	RA: r	1/y :	Resp	Conc.	EMPC;	DL
1	Total Tetra-Furans	19.87	1.727e4	2.482e4	1.466e3	2.024e3	0.72	NO	3.491e3	0.52316	0.52316	0.155
2	Total Tetra-Furans	20.41	7.694e4	1.064e5	6.283e3	8.729e3	0.72	NO	1.501e4	2.2497	2.2497	0.155
3	Total Tetra-Furans	21.03	4.313e5	6.078e5	4.095e4	5.505e4	0.74	NO	9.600e4	14.387	14.387	0.155
4	Total Tetra-Furans	21.59	6.977e4	1.024e5	1.046e4	1.438e4	0.73	NO	2.484e4	3.7234	3.7234	0.155
5	Total Tetra-Furans	22.01	3.690e5	4.877e5	3.828e4	5.085e4	0.75	NO	8.914e4	13.359	13.359	0.155
6	Total Tetra-Furans	22.53	1.504e5	1.998e5	2.290e4	3.097e4	0.74	NO	5.387e4	8.0729	8.0729	0.155
7	Total Tetra-Furans	22.83	1.421e5	1.876e5	5.350e3	7.935e3	0.67	NO	1.328e4	1.9910	1.9910	0.155
8	Total Tetra-Furans	23.22	1.744e4	2.357e4	1.142e3	1.839e3	0.62 Y	'ES	0.000e0	0.00000	0.39355	0.155
9	Total Tetra-Furans	23.30	3.936e4	5.473e4	2.916e3	3.953e3	0.74	NO	6.869e3	1.0294	1.0294	0.155
10	Total Tetra-Furans	23.49	2.181e5	3.158e5	1.877e4	2.614e4	0.72	NO	4.490e4	6.7298	6.7298	0.155
11	Total Tetra-Furans	23.58	2.300e5	3.075e5	2.053e4	2.691e4	0.76	NO	4.745e4	7.1106	7.1106	0.155
12	Total Tetra-Furans	24.09	3.730e6	5.041e6	1.794e5	2.390e5	0.75	NO	4.183e5	62.693	62.693	0.155
13	Total Tetra-Furans	24.33	9.038e4	1.170e5	7.084e3	8.939e3	0.79	NO	1.602e4	2.4013	2.4013	0.155
14	Total Tetra-Furans	24.52	1.873e4	2.715e4	1.419e3	1.932e3	0.73	NO	3.350e3	0.50212	0.50212	0.155
15	Total Tetra-Furans	24.73	5.777e4	6.538e4	3.677e3	4.673e3	0.79	NO	8.350e3	1.2514	1.2514	0.155
16	Total Tetra-Furans	24.85	2.906e5	4.033e5	1.920e4	2.535e4	0.76	NO	4.455e4	6.6769	6.6769	0.155
17	;2,3,7,8-TCDF	24.97	2.351e6	3.207e6	1.932e5	2.589e5	0.75	NO	4.522e5	67.763	67.763	0.155
18	Total Tetra-Furans	25.33	1.824e5	2.501e5	1.181e4	1.598 e 4	0.74	NO	2.779e4	4.1648	4.1648	0.155
19	Total Tetra-Furans	25.57	1.066e4	2.289e4	9.880e2	1.395e3	0.71	NO	2.383e3	0.35719	0.35719	0.155
20	Total Tetra-Furans	25.89	1.302e4	1.270e4	7.610e2	9.580e2	0.79	NO	1.719e3	0.25762	0.25762	0.155
21	Total Tetra-Furans	26.42	7.485e4	1.019e5	4.907e3	6.055e3	0.81	NO	1.096e4	1.6428	1.6428	0.155
22	Total Tetra-Furans	26.59	7.700e4	9.610e4	5.011e3	6.283e3	0.80	NO	1.129e4	1.6926	1.6926	0.155
23	·Total Tetra-Furans	26.90	7.163e4	9.619 e 4	1.336e3	1.673e3	0.80	NO	3.010e3	0.45105	0.45105	0.155

Penta-Furans function 1

;Na	ime :	RT ;	m1 Height;	m2 Height ;	m1 Resp;	m2 Resp	RA:	n/y	Resp		Conc	EMPC:	DL
1 15	t Func. Penta-Furans	26.99	3.958e6	2.459e6	2.754e5	1.720e5	1.60	NO	4.474e5	5	7.496	57.496	0.0494

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Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-12.qld

Last Altered: Printed:

Friday, February 07, 2020 11:56:47 Pacific Standard Time Friday, February 07, 2020 11:57:32 Pacific Standard Time

Name: 200202R1_12, Date: 02-Feb-2020, Time: 19:00:52, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

Penta-Furans

	Name	RT :	m1 Height;	m2 Height ;	m1 Resp;	m2 Resp	· RA	n/y	Resp	Conc	EMPC:	DL
1	Total Penta-Furans	28.32	2.922e5	1.783e5	2.232e4	1.377e4	1.62	NO	3.609e4	4.6379	4.6379	0.242
2	Total Penta-Furans	28.45	5.262e6	3.467e6	3.507e5	2.275e5	1.54	NO	5.782e5	74.313	74.313	0.242
3	Total Penta-Furans	29.03	8.017e5	5.423e5	5.938e4	3.880e4	1.53	NO	9.818e4	12.618	12.618	0.242
4	Total Penta-Furans	29.25	1.568e6	1.052e6	8.730e4	5.744 e 4	1.52	NO	1.447e5	18.602	18.602	0.242
5	1,2,3,7,8-PeCDF	29.45	9.875e6	6.361e6	5.318e5	3.452e5	1.54	NO	8.771e5	110.36	110.36	0.253
6	Total Penta-Furans	29.69	4.268e6	2.705e6	2.221e5	1.428e5	1.55	NO	3.649e5	46.893	46.893	0.242
7	Total Penta-Furans	30.18	3.281e4	2.591e4	1.674e3	1.211e3	1.38	NO	2.886e3	0.37088	0.37088	0.242
8	Total Penta-Furans	30.29	1.384e5	9.019e4	6.589e3	4.023e3	1.64	NO	1.061e4	1.3638	1.3638	0.242
9	2,3,4,7,8-PeCDF	30.39	5.703e6	3.727e6	1.981e5	1.320e5	1.50	NO	3.301e5	41.341	41.341	0.219
10	Total Penta-Furans	30.41	5.602e6	3.624e6	1.694e5	1.090e5	1.55	NO	2.784e5	35.783	35.783	0.242
11	Total Penta-Furans	30.67	1.778e4	1.425e4	1.225e3	7.727e2	1.58	NO	1.997e3	0.25668	0.25668	0.242
12	Total Penta-Furans	31.31	3.835e5	2.769e5	9.521e3	6.723e3	1.42	NO	1.624 e 4	2.0876	2.0876	0.242

Hexa-Furans

	Name	RT ;	m1 Height;	m2 Height ;	m1 Resp;	m2 Resp	: RA	n/y :	Resp	. Conc.	EMPC:	DL
1	Total Hexa-Furans	32.02	7.250e5	6.099e5	3.905e4	3.319e4	1.18	NO	7.224e4	13.310	13.310	0.334
2	Total Hexa-Furans	32.18	3.531e6	3.064e6	1.662e5	1.404e5	1.18	NO	3.065e5	56.474	56.474	0.334
3	Total Hexa-Furans	32.53	7.408e4	7.035e4	3.975e3	3.426e3	1.16	NO	7.401e3	1.3636	1.3636	0.334
4	Total Hexa-Furans	32.71	8.889e6	7.439 e 6	4.465e5	3.778e5	1.18	NO	8.243e5	151.86	151.86	0.334
5	Total Hexa-Furans	33.06	1.467e5	1.306e5	7.300e3	6.524e3	1.12	NO	1.382e4	2.5469	2.5469	0.334
6	-1,2,3,4,7,8-HxCDF	33.17	9.193e6	7.826e6	4.808e5	4.108e5	1.17	NO	8.915e5	164.02	164.02	0.319
7	1,2,3,6,7,8-HxCDF	33.28	2.536e6	2.106e6	1.339e5	1.144e5	1.17	NO	2.482e5	45.290	45.290	0.304
8	Total Hexa-Furans	33.55	5.805e4	5.635e4	3.383e3	3.134e3	1.08	NO	6.517e3	1.2007	1.2007	0.334
9	Total Hexa-Furans	33.74	4.590e4	4.679e4	2.154e3	2.162e3	1.00	YES	0.000e0	0.00000	0.71694	0.334
10	2,3,4,6,7,8-HxCDF	33.87	8.711e5	7.214e5	4.985e4	4.153e4	1.20	NO	9.138e4	17.032	17.032	0.353
11	1,2,3,7,8,9-HxCDF	34.78	5.032e5	4.560e5	1.026e4	9.570e3	1.07	NO	1.983e4	4.2950	4.2950	0.426
12	Total Hexa-Furans	34.81	1.153e6	9.573e5	5.832e4	4.958e4	1.18	NO	1.079e5	19.879	19.879	0.334

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200202R1\200202R1-12.qld

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Friday, February 07, 2020 11:56:47 Pacific Standard Time

Printed:

Friday, February 07, 2020 11:57:32 Pacific Standard Time

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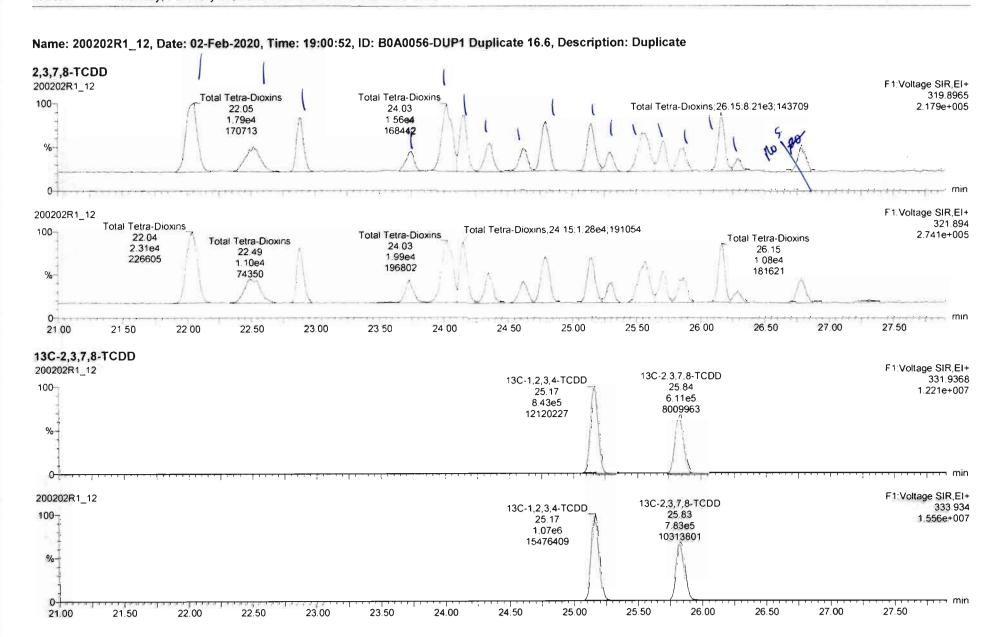
Hepta-Furans

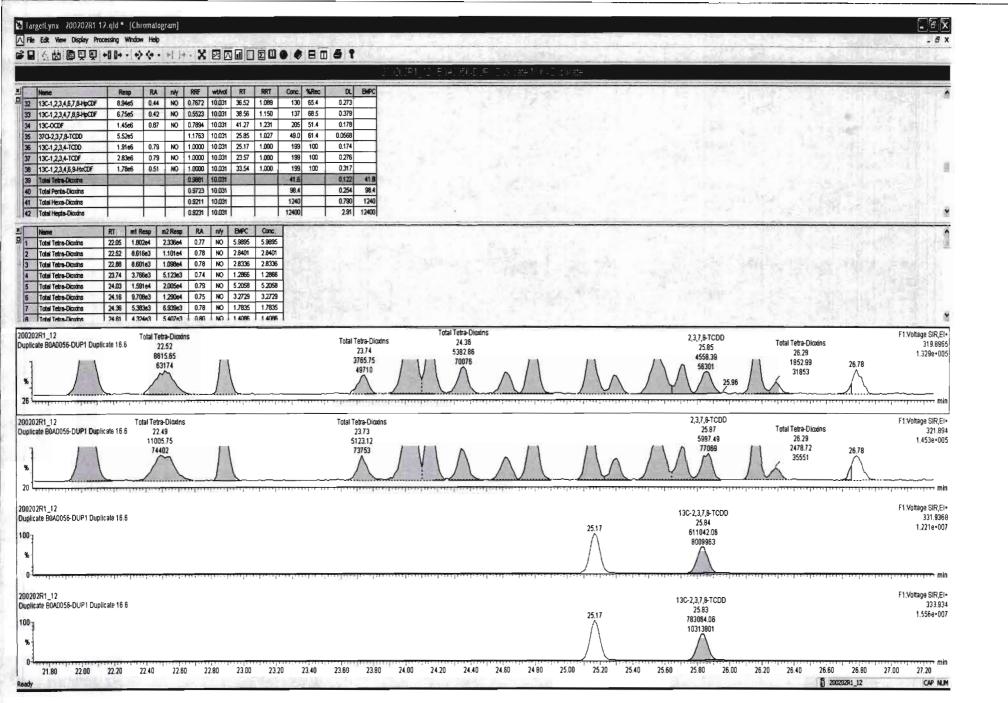
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1,2,3,4,6,7,8-HpCDF	36.54	6.106e6	6.169e6	4.889e5	4.995e5	0.98	NO	9.885e5	258.98	258.98	0.702
2 Total Hepta-Furans	36.94	1.525e5	1.454e5	1.254e4	1.234e4	1.02	NO	2.488e4	7.4294	7.4294	0.772
3 Total Hepta-Furans	37.15	1.927e7	1.958e7	1.667e6	1.711e6	0.97	NO	3.378e6	1008.8	1008.8	0.772
4 1,2,3,4,7,8,9-HpCDF	38.57	8.828e5	9.077e5	6.580e4	6.626e4	0.99	NO	1.321e5	39.828	39.828	0.750

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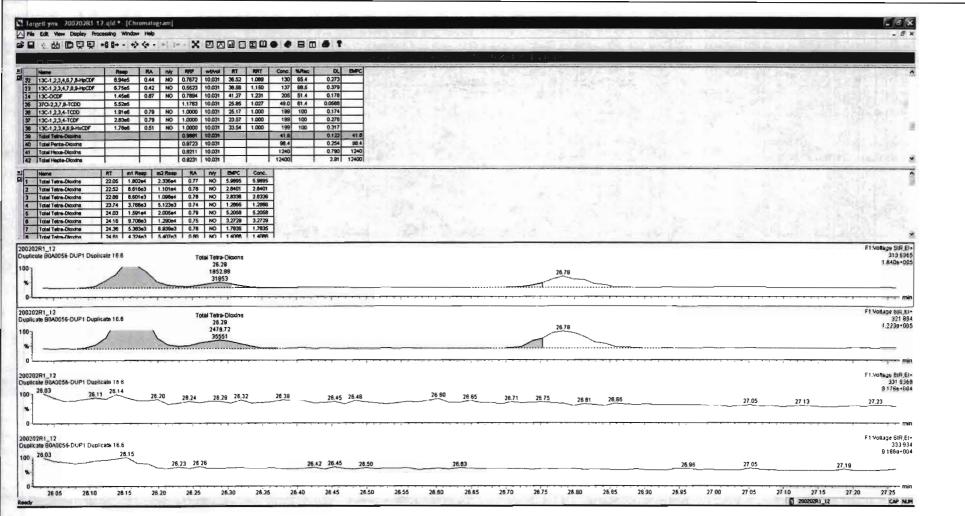
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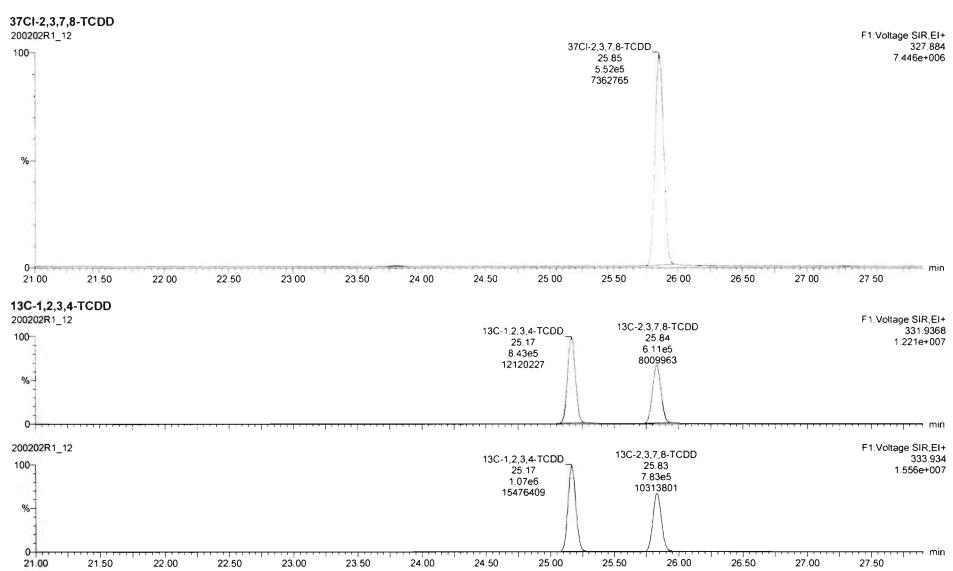
Work Order 1903654 Page 406 of 1184

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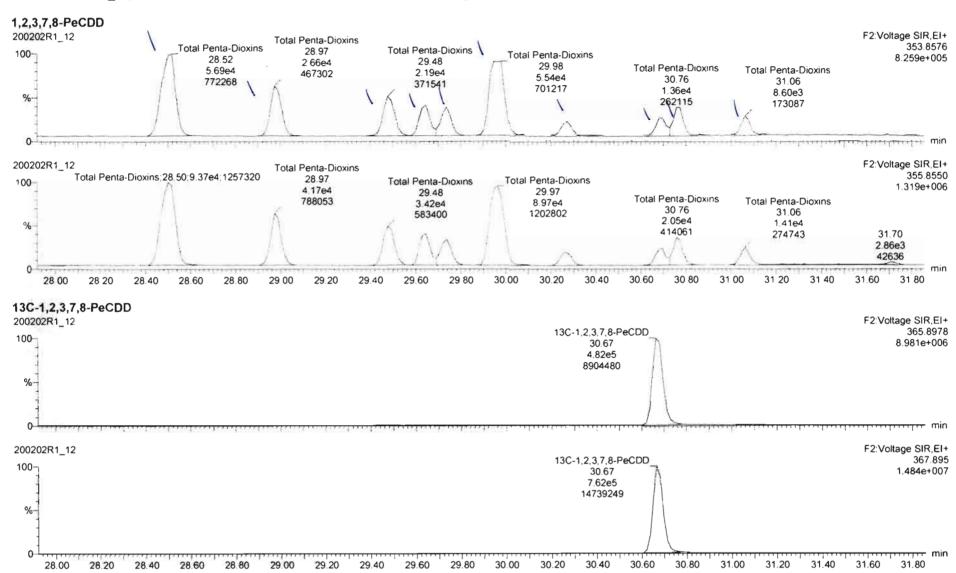
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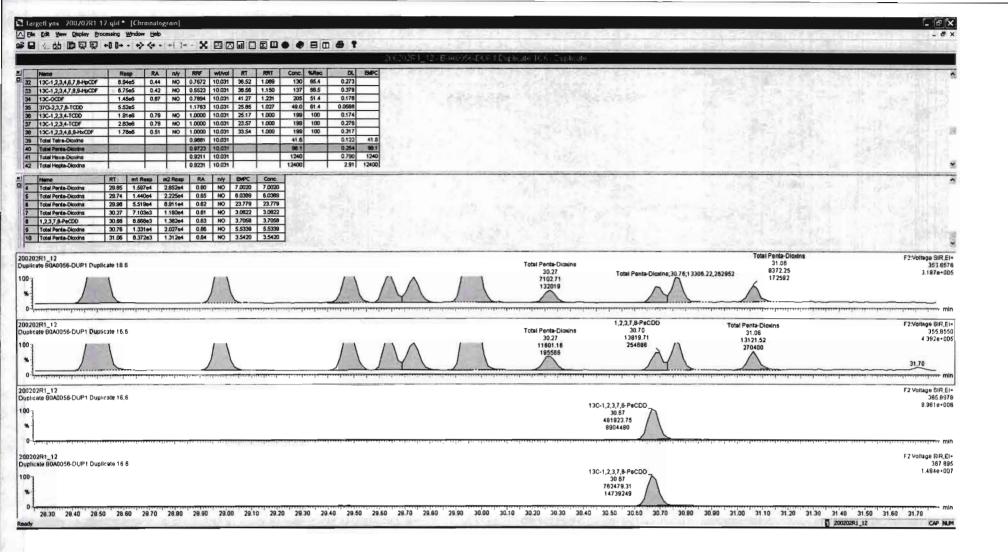


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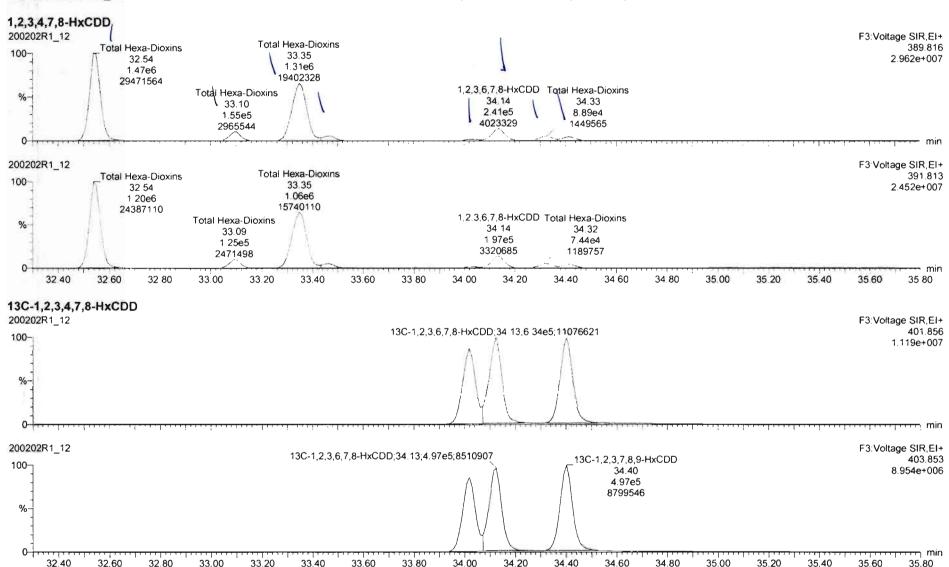


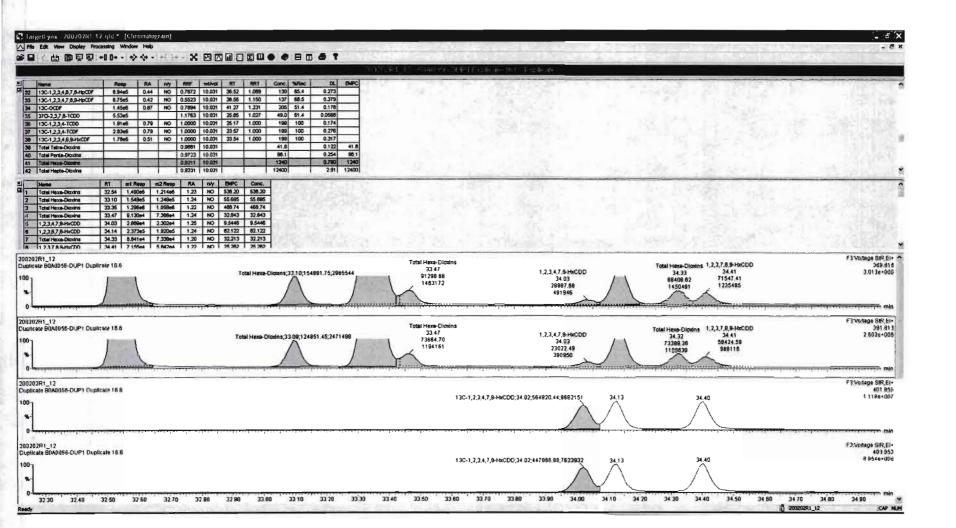
Work Order 1903654 Page 409 of 1184

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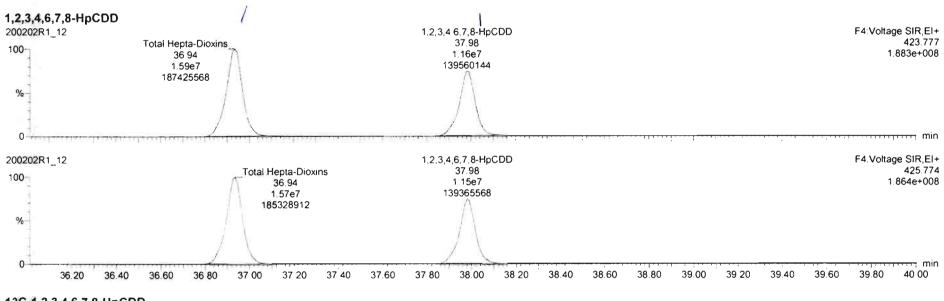


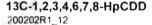
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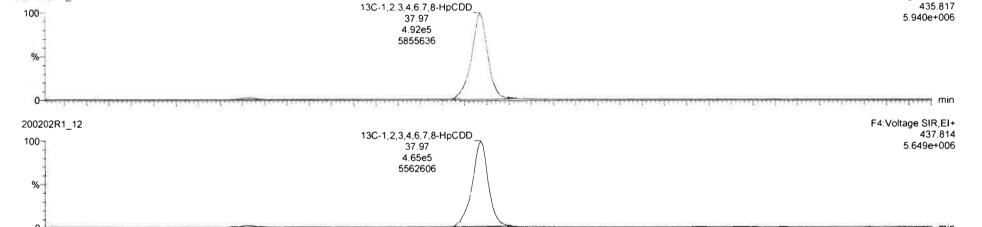
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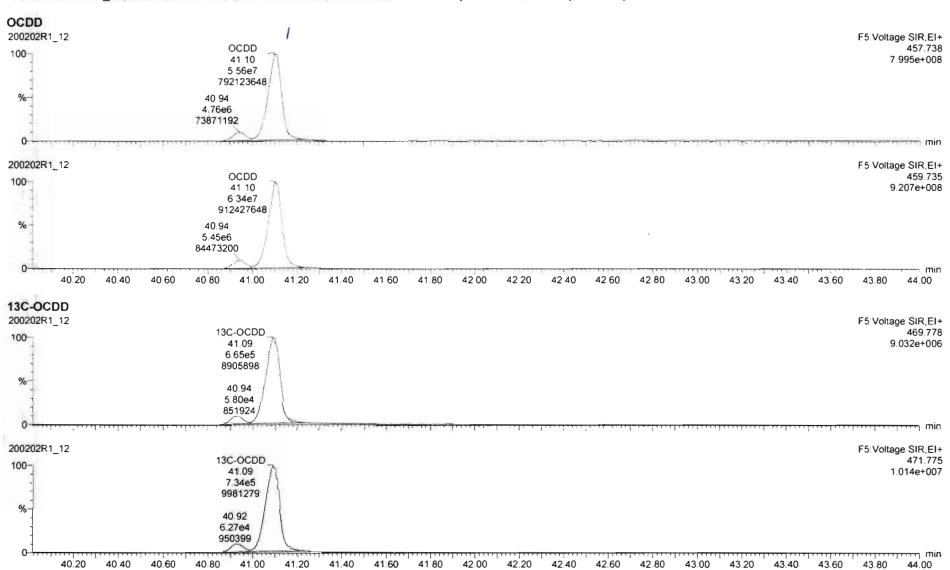
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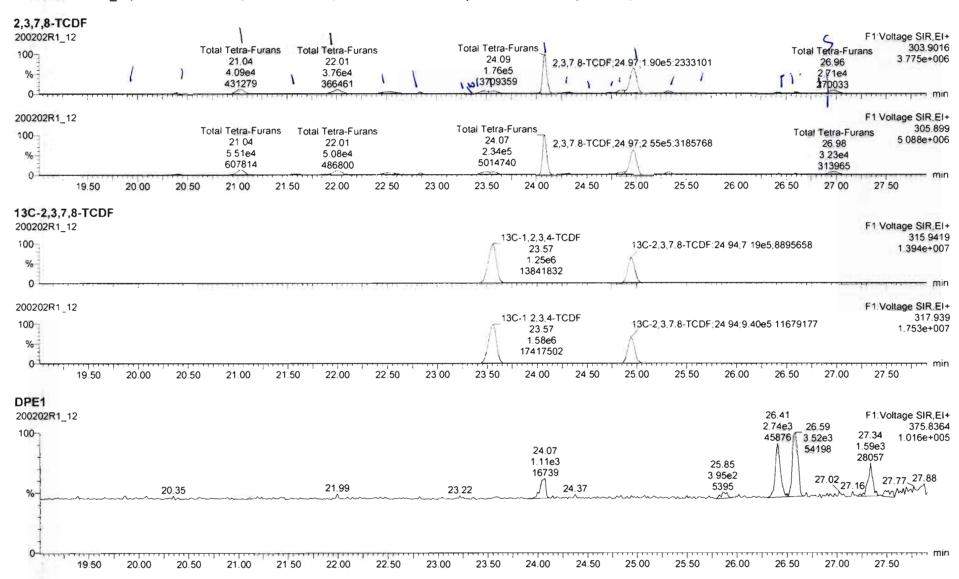
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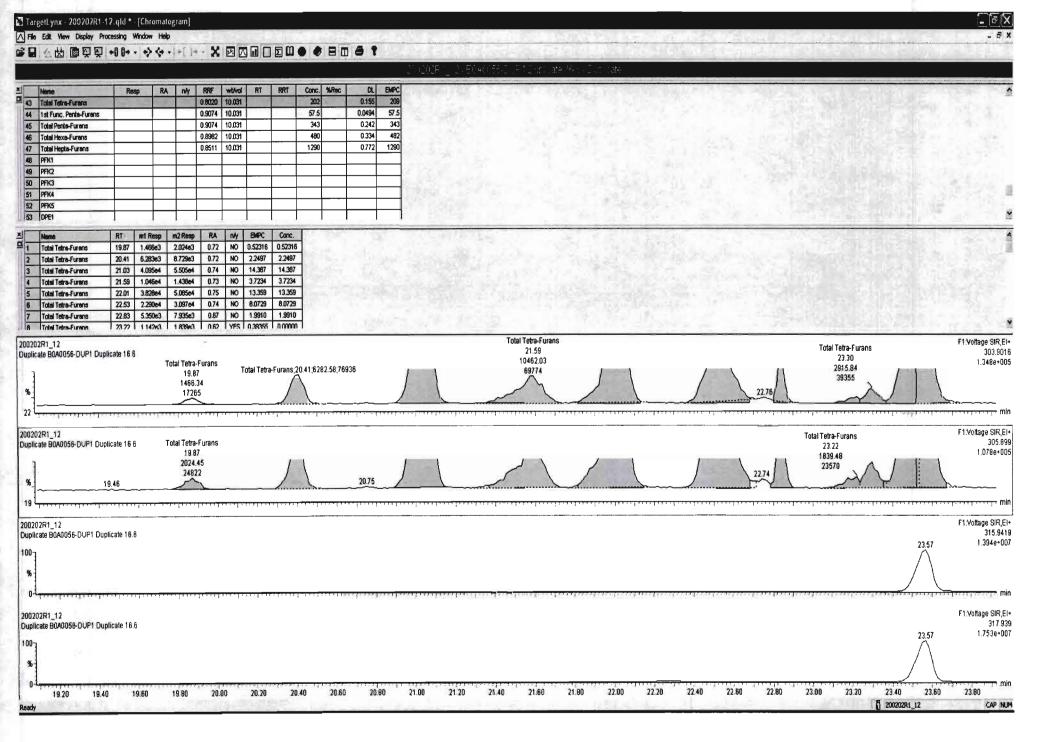


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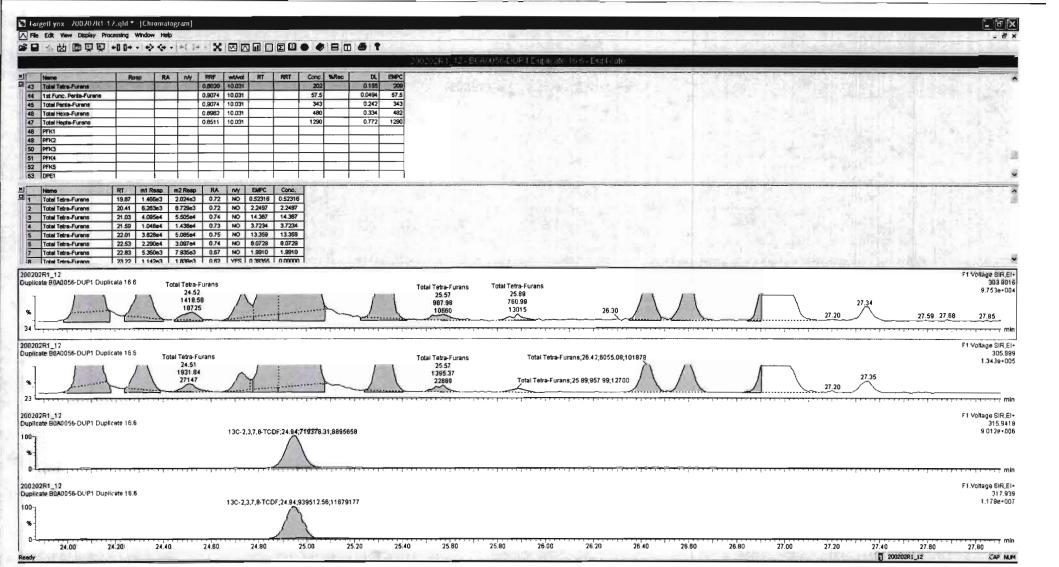
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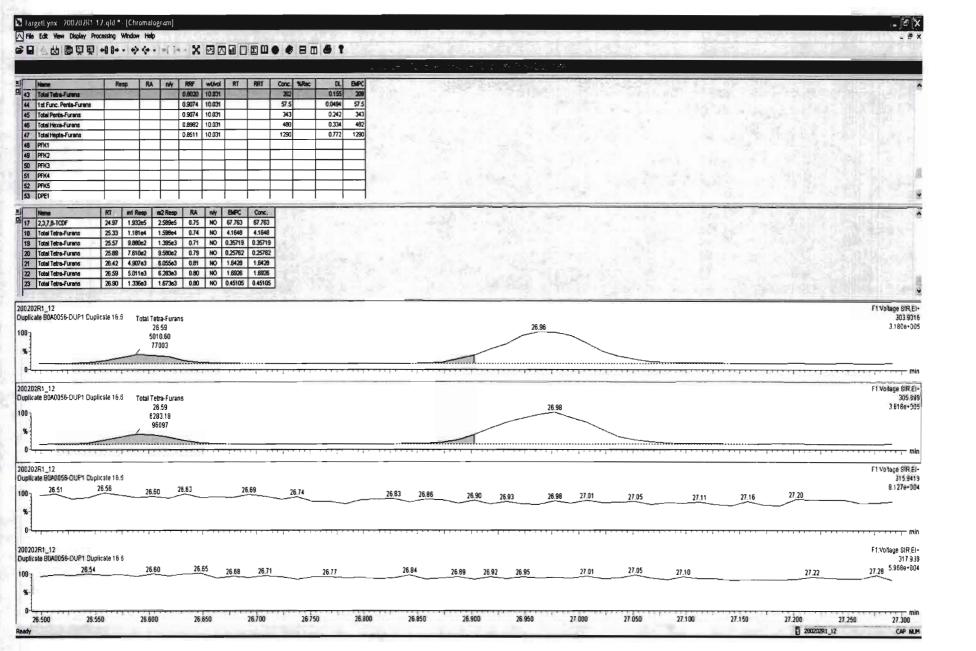
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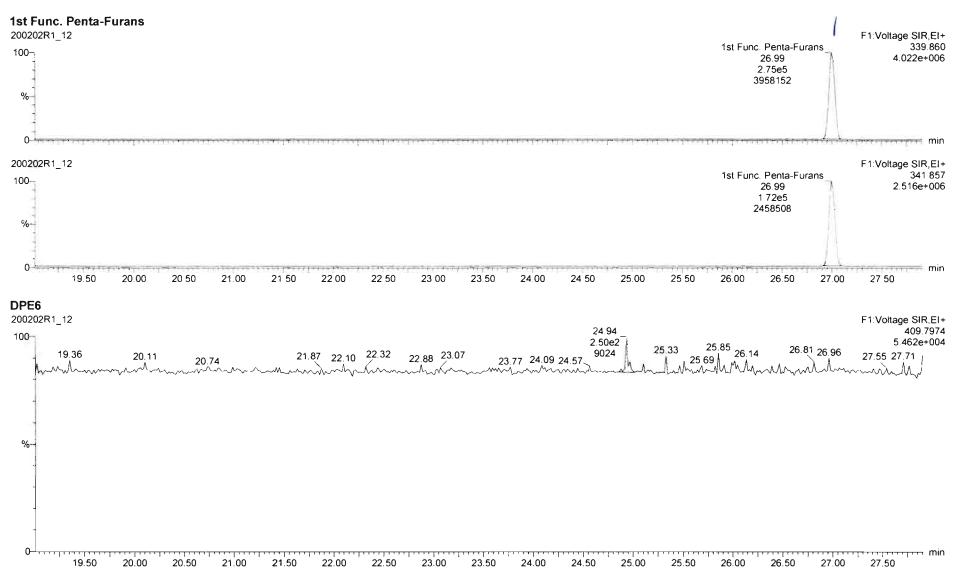


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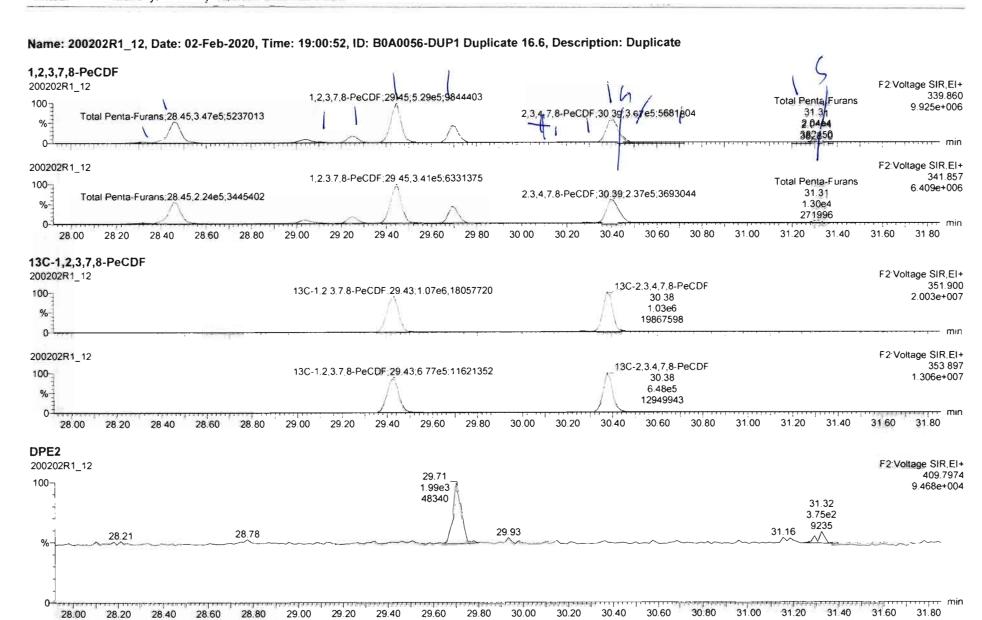
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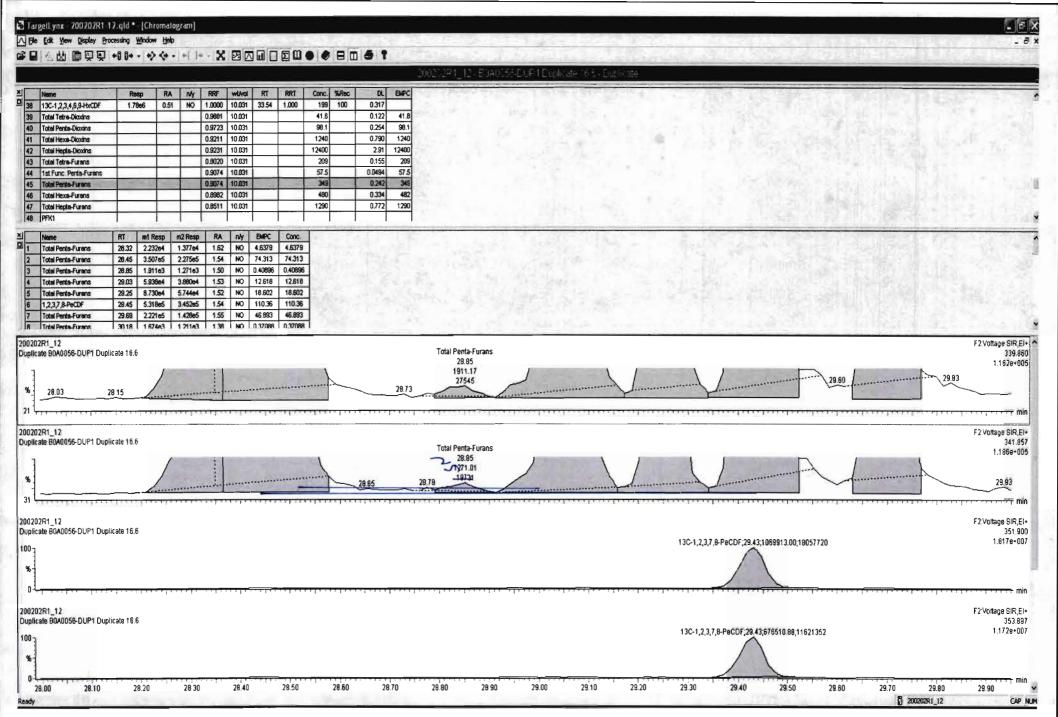
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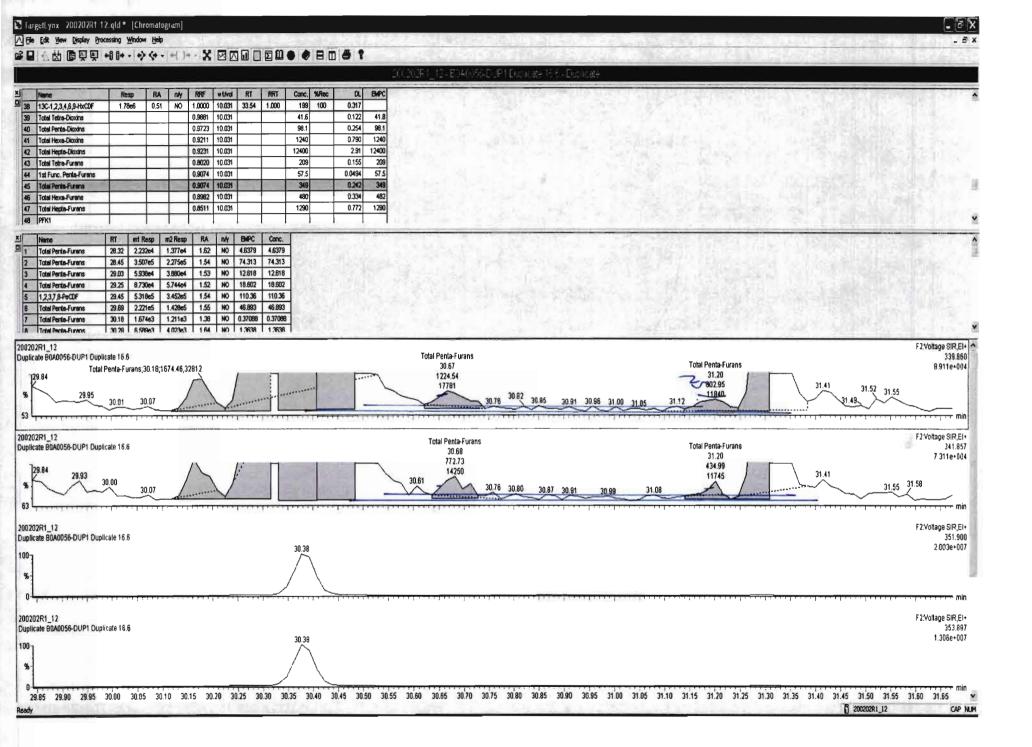


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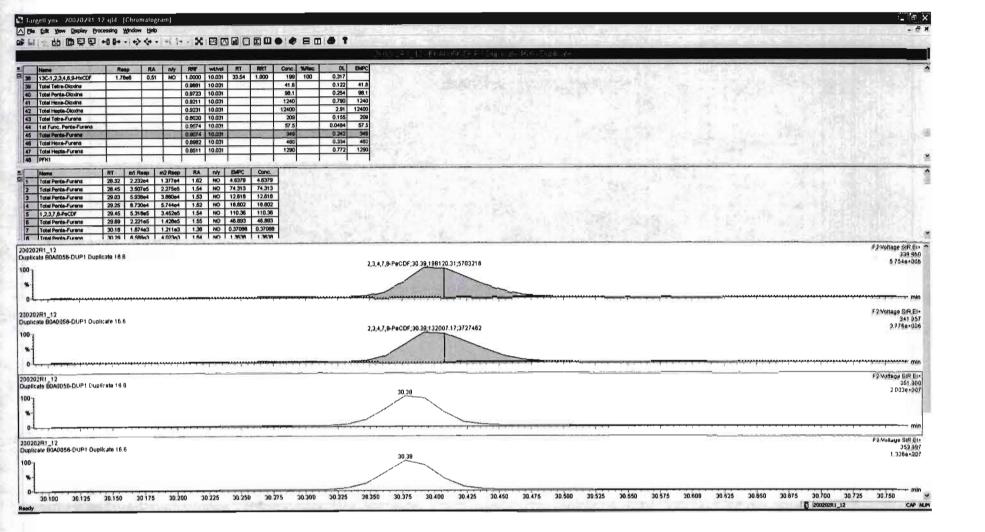
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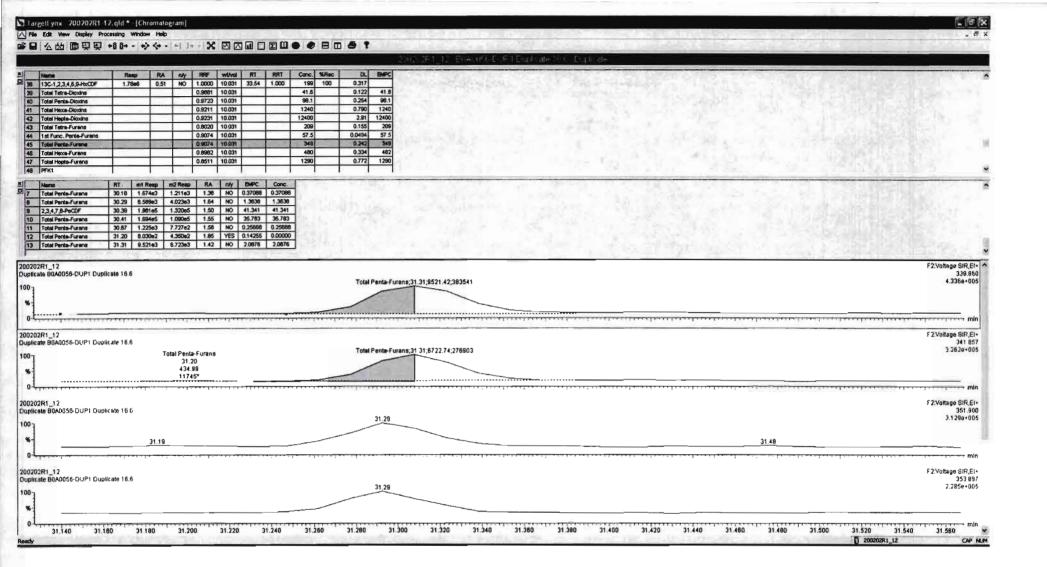




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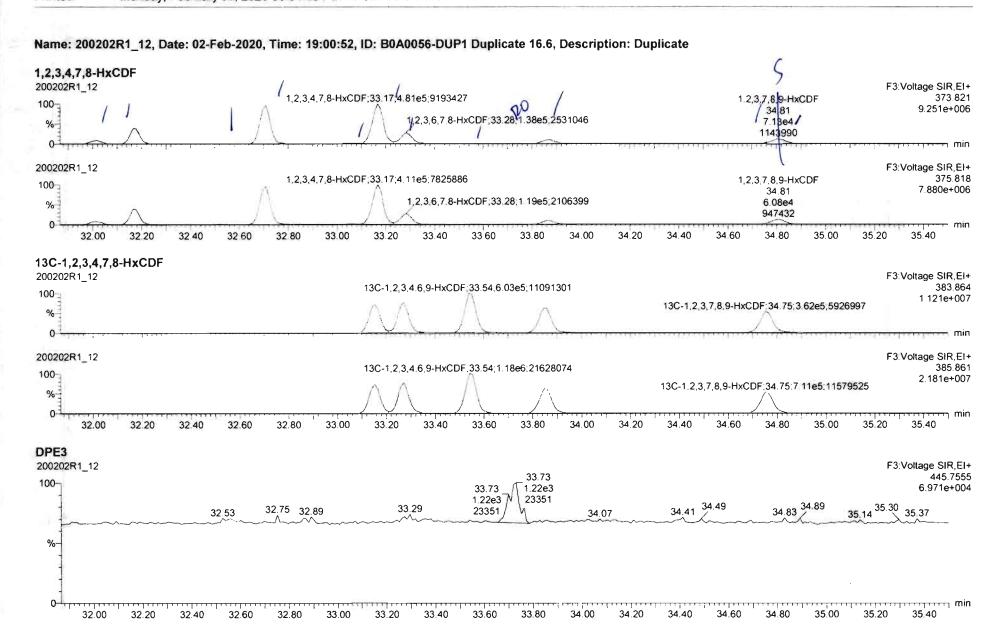
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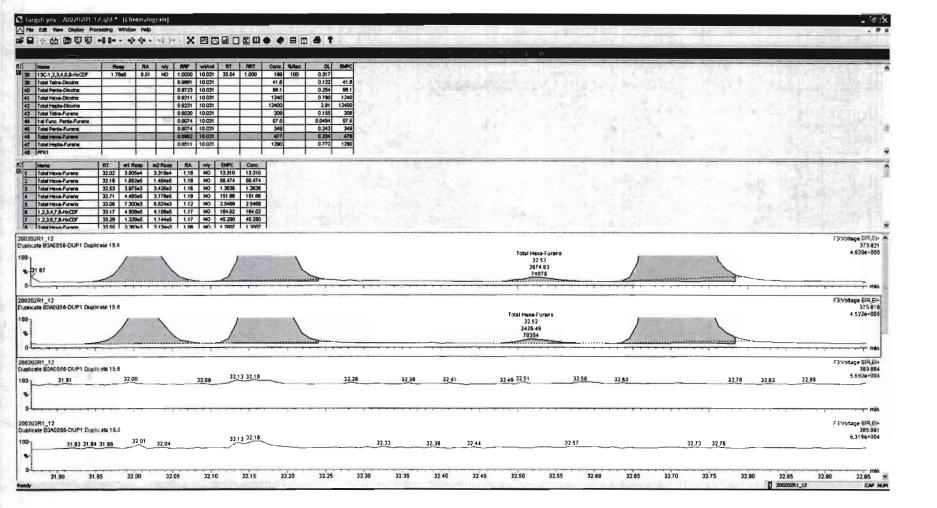


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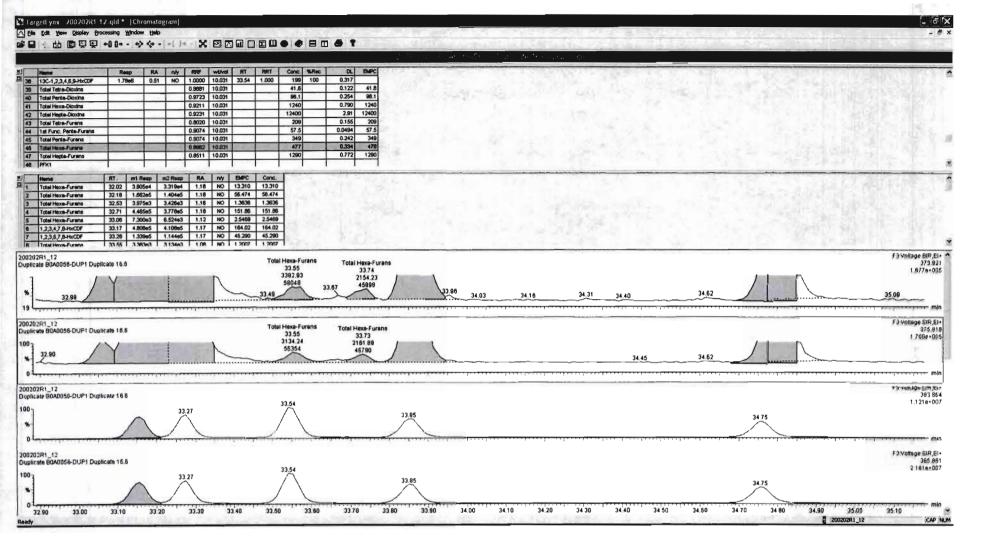
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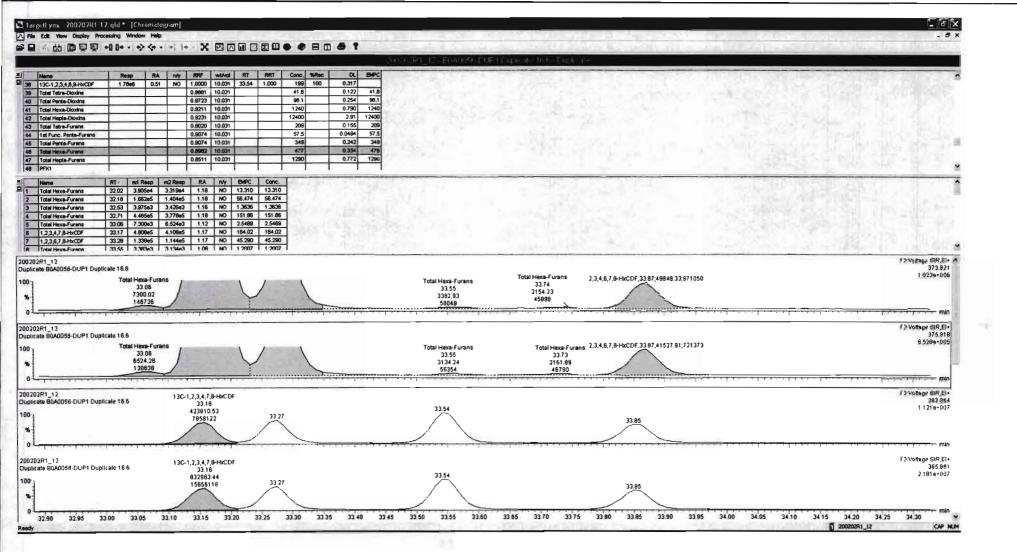




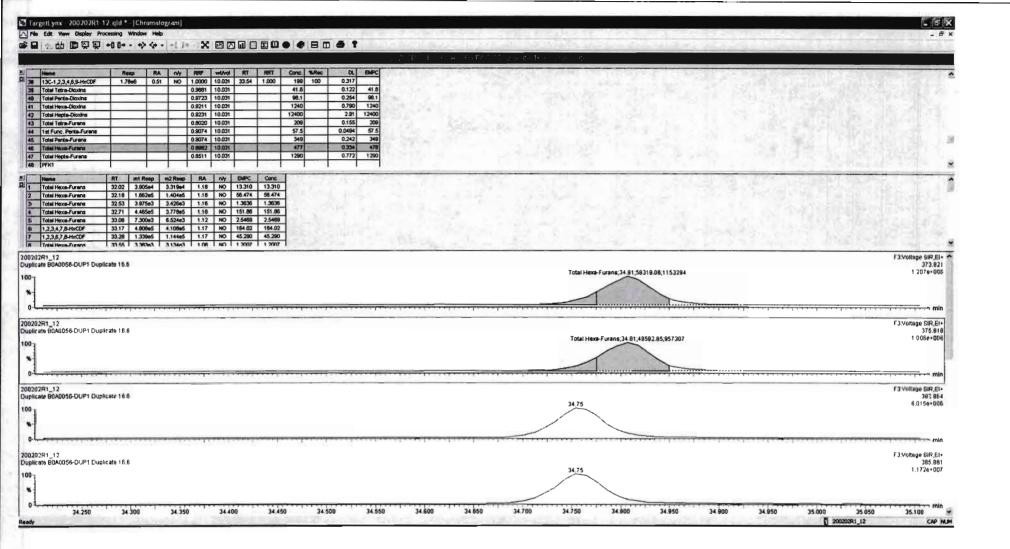
Work Order 1903654 Page 425 of 1184



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417 825

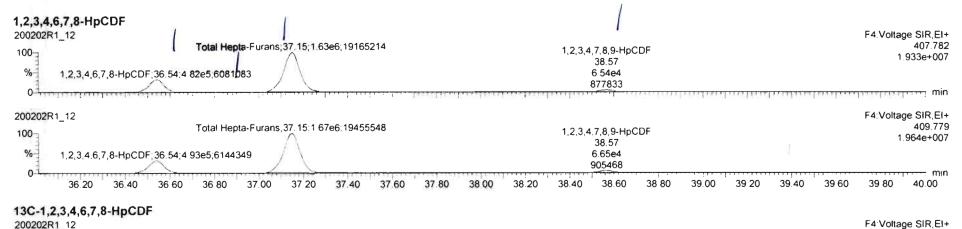
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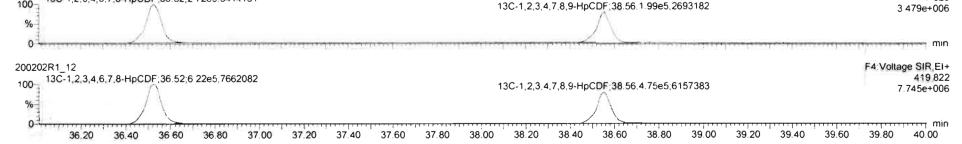
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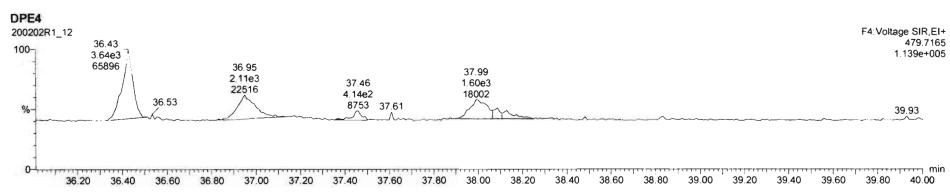
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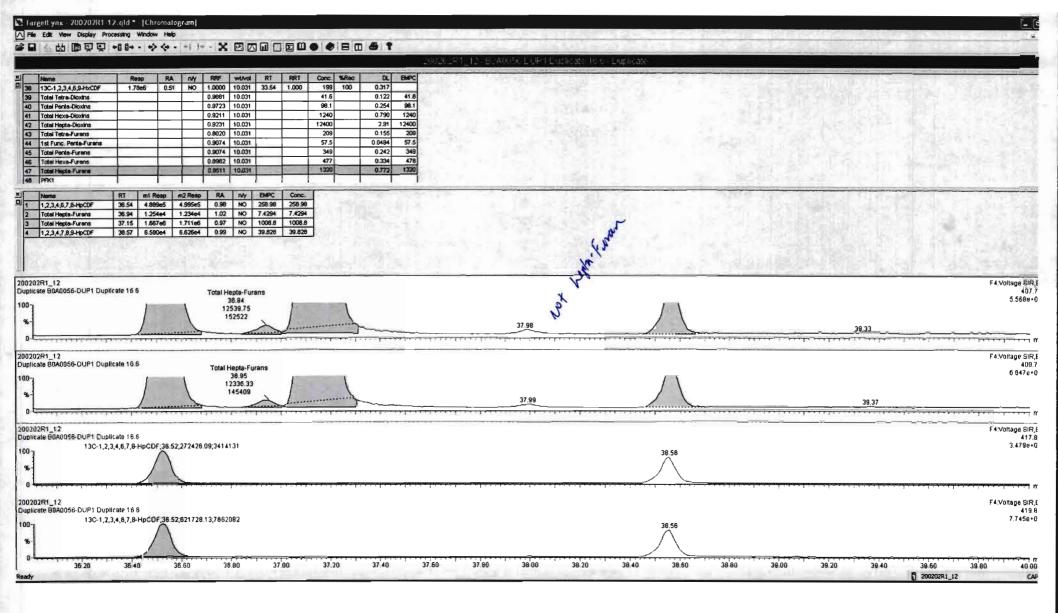
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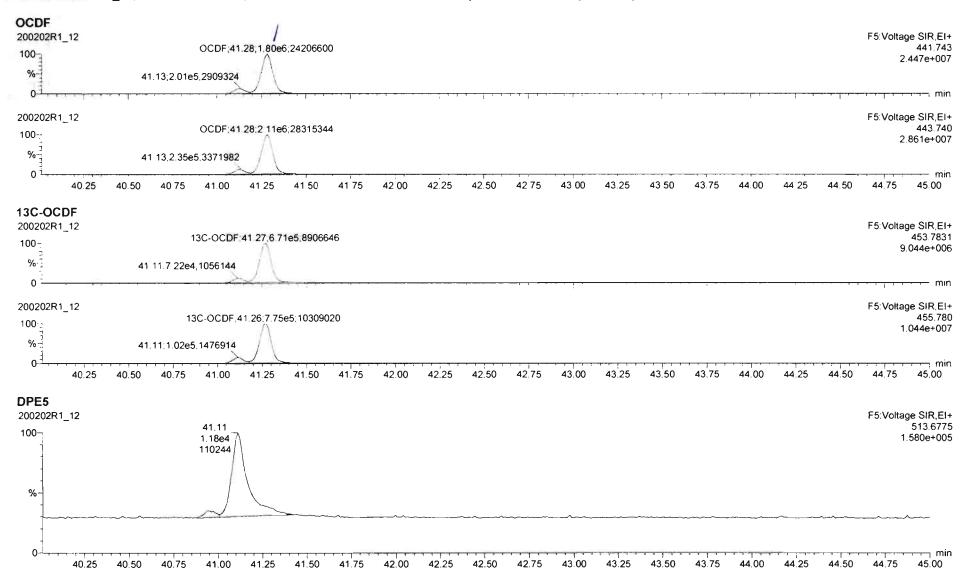




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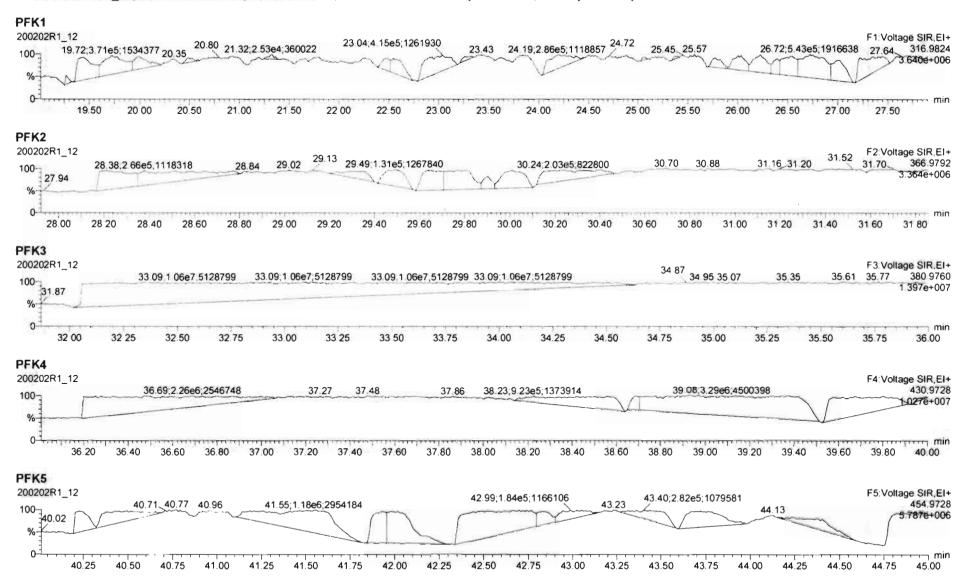
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MassLynx 4.1 SCN815

Page 1 of 1

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He 27.2020

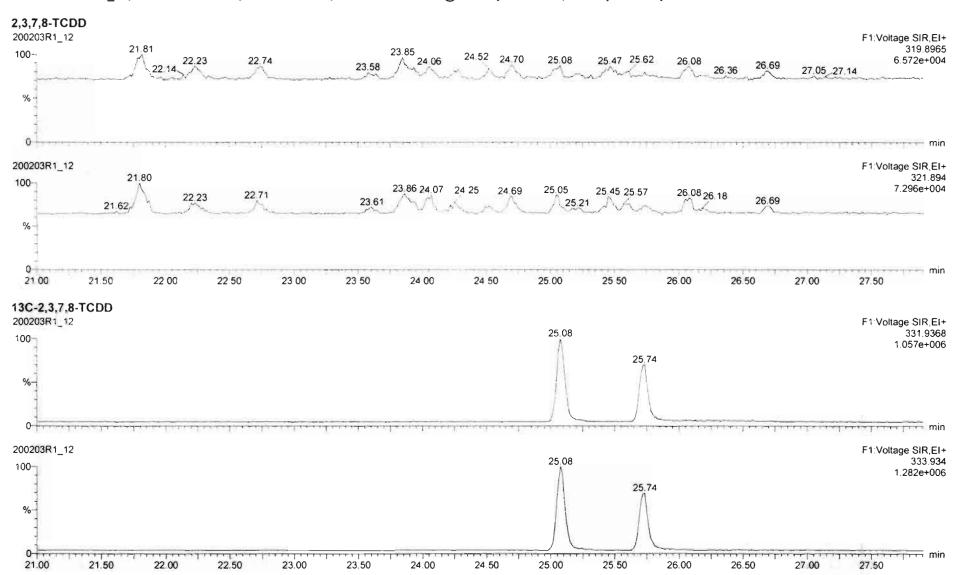
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2	7 OCDD	4.80e6	88.0	NO	0.975	10.031	40.921	40.93	1.000	1.000	35038		11.2	35000
3	23 13C-1,2,3,4,6,7,8-HpCDD	4.74e4	1.04	NO	0.747	10.031	37.955	37.93	1.132	1.131	96.946	48.6	1.40	
4	24 13C-OCDD	5.61e4	0.91	NO	0.707	10.031	40.839	40.92	1.218	1.220	121.38	30.4	1.22	
5	38 13C-1,2,3,4,6,9-HxCDF	1.30e5	0.52	NO	1.00	10.031	33.520	33.53	1.000	1.000	199.38	100	1.22	

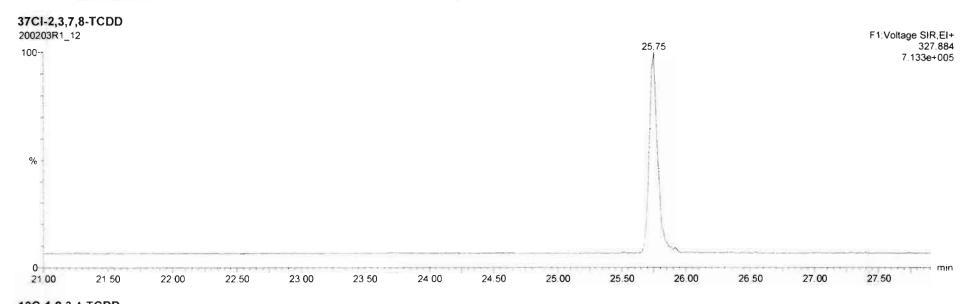
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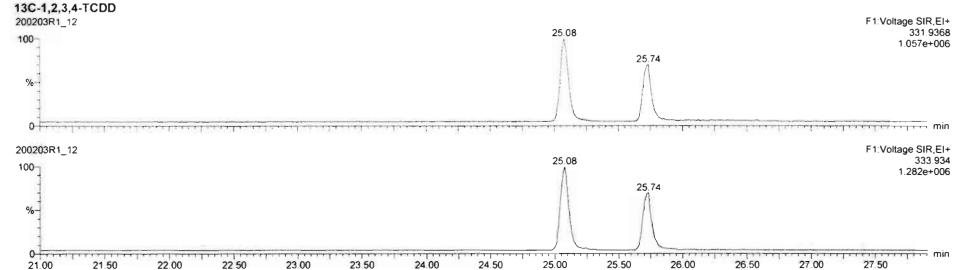
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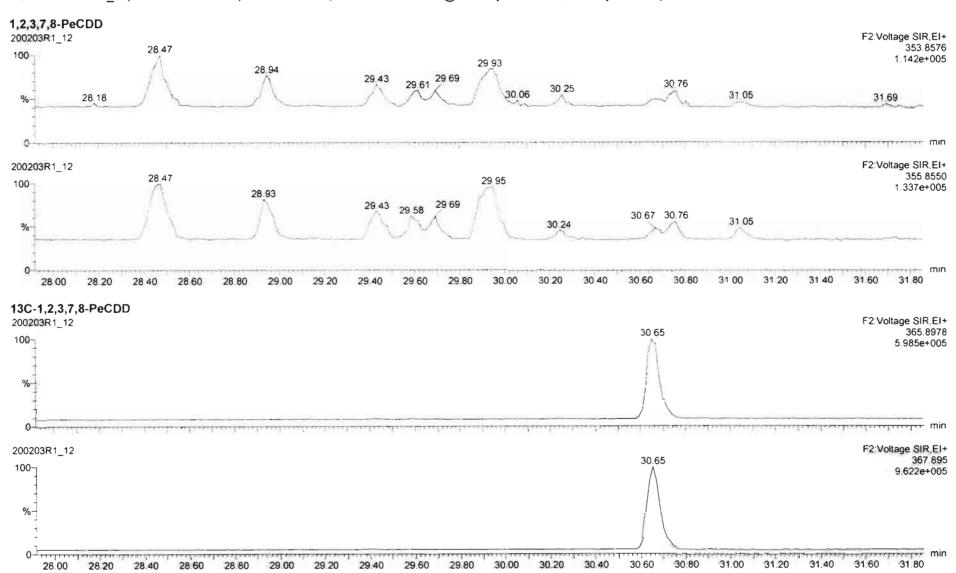
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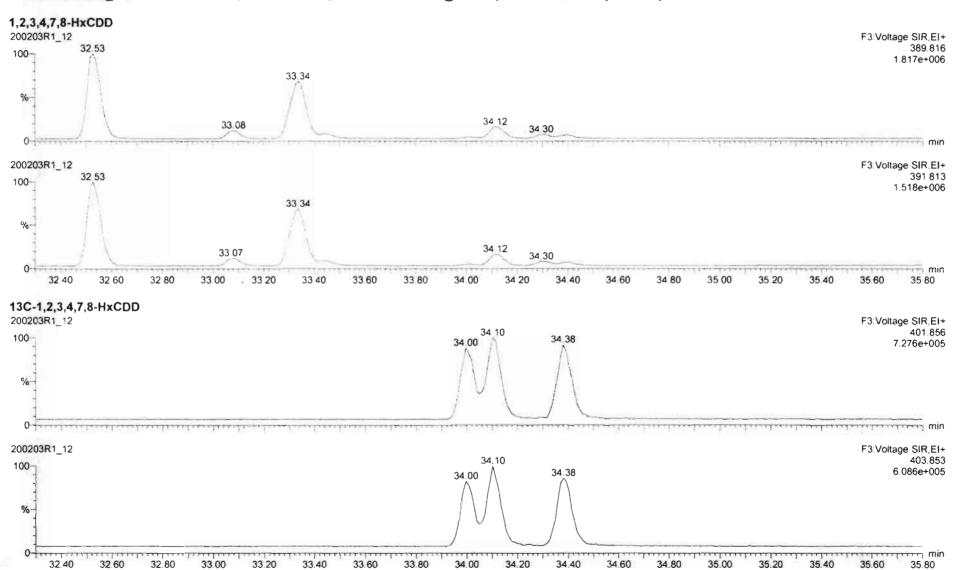
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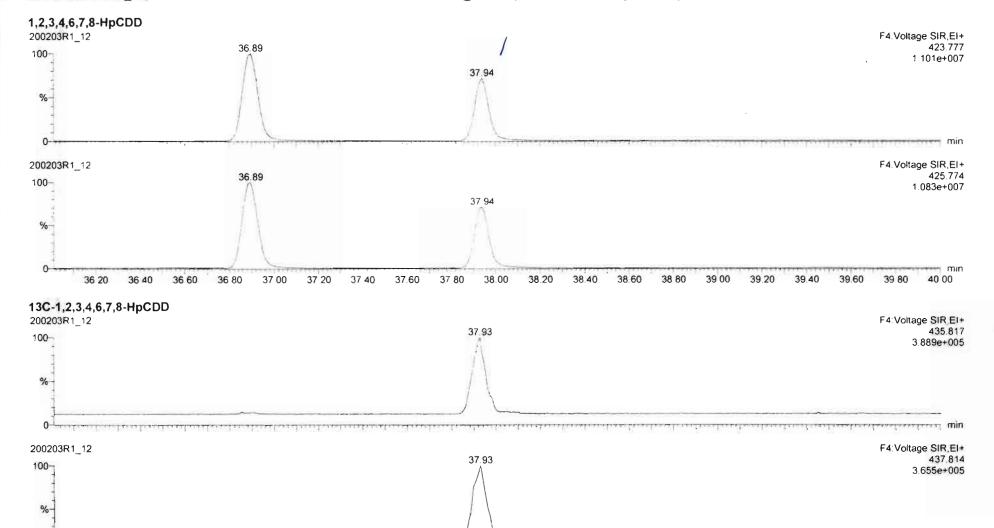


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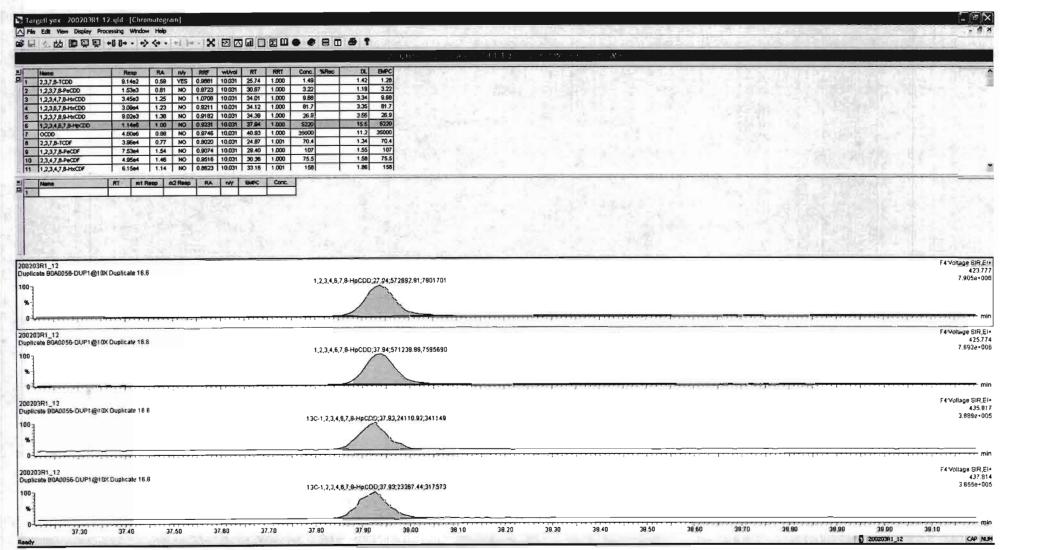
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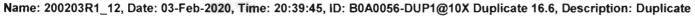
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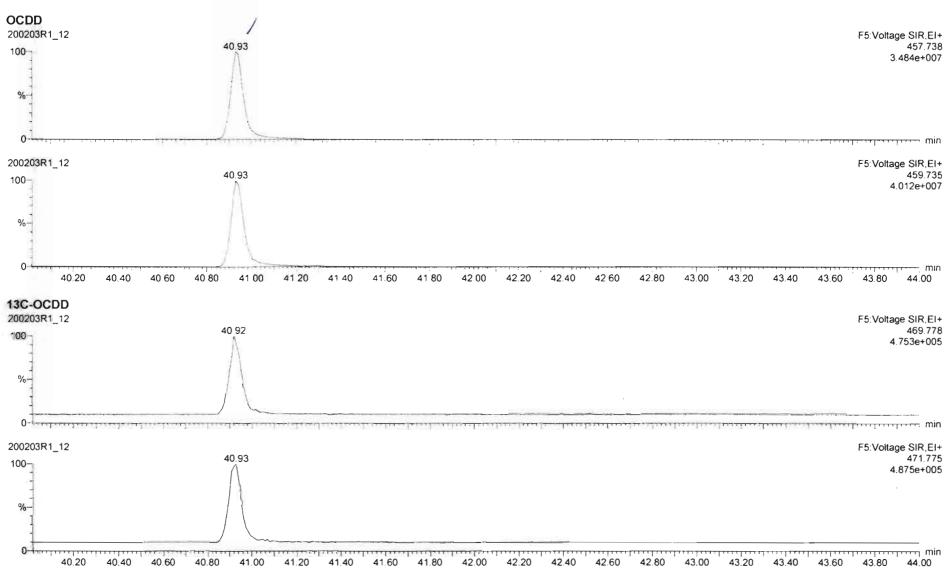


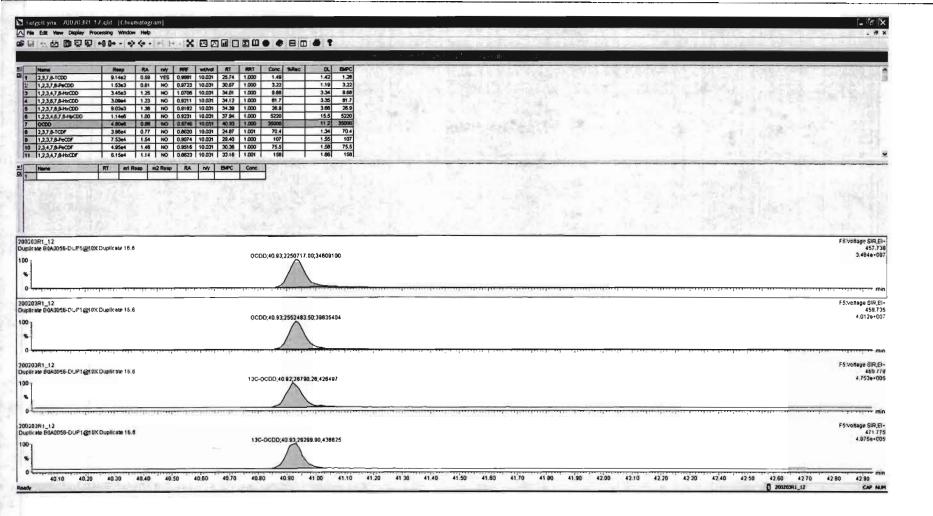
Work Order 1903654 Page 439 of 1184

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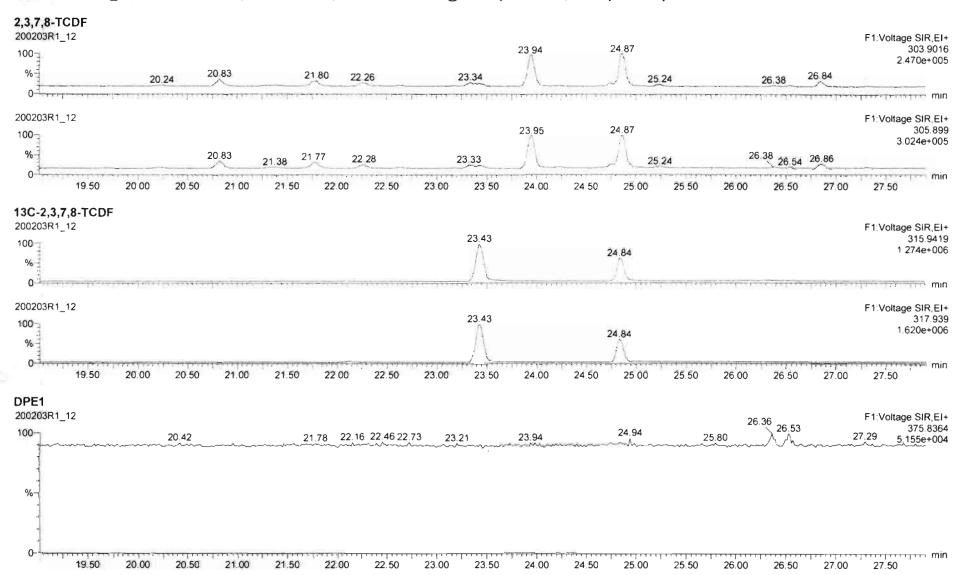




Work Order 1903654 Page 441 of 1184

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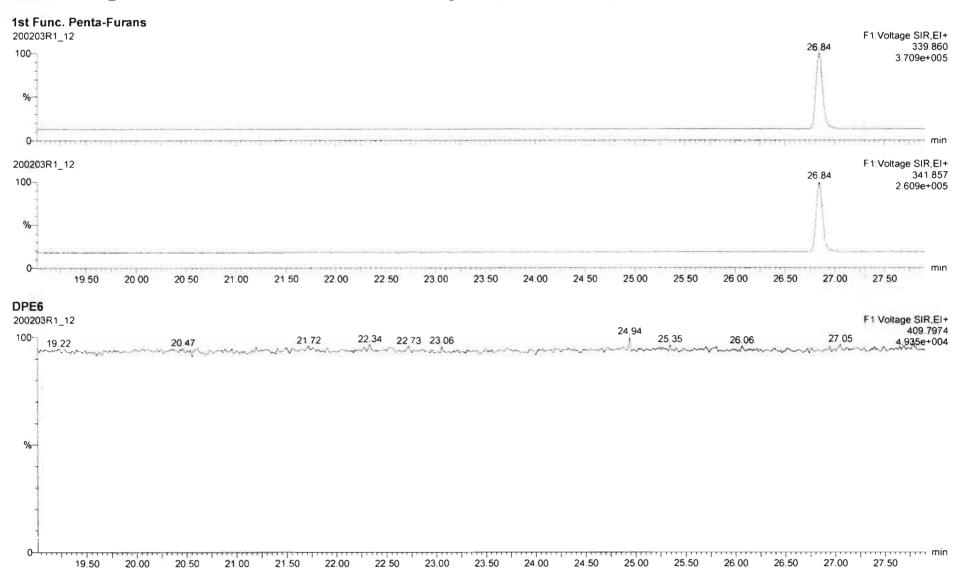


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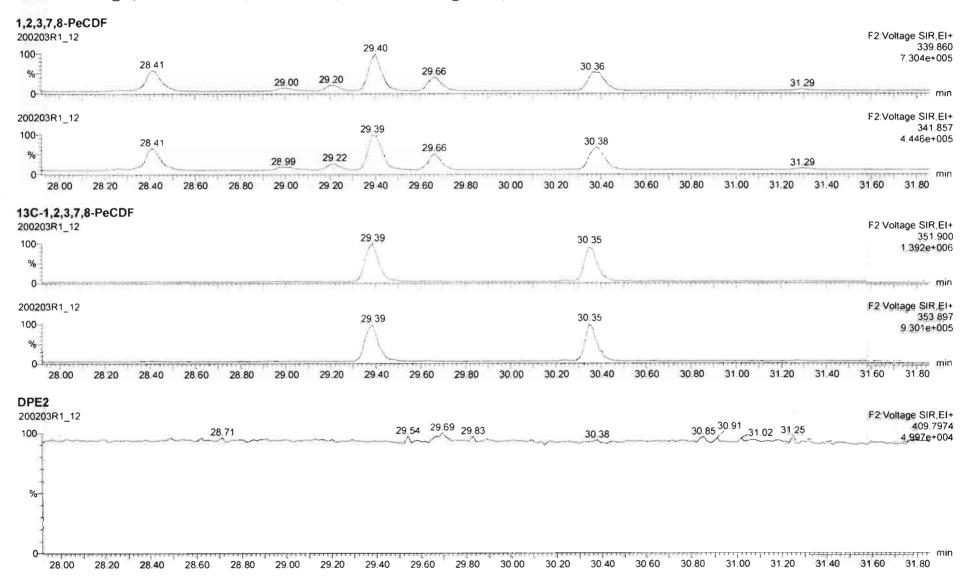
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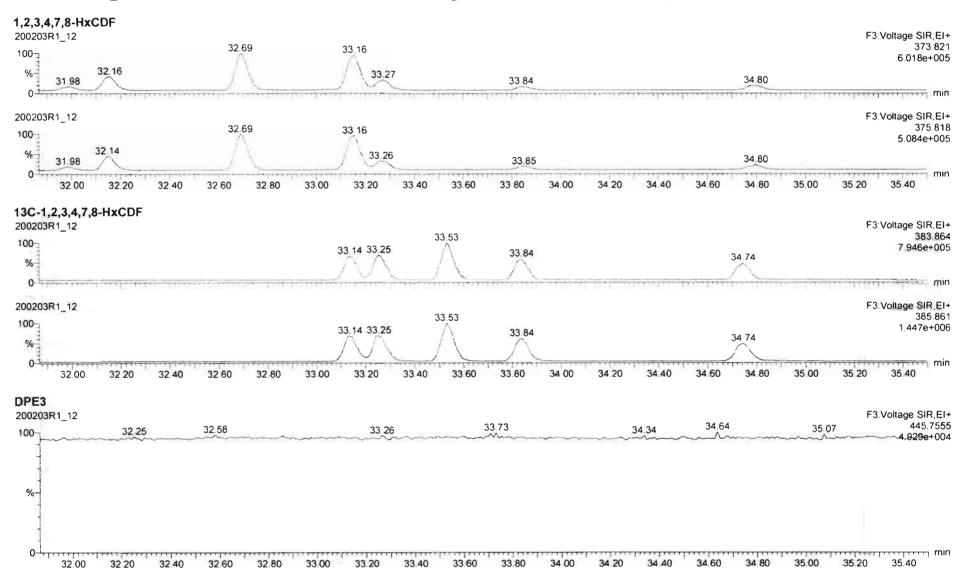
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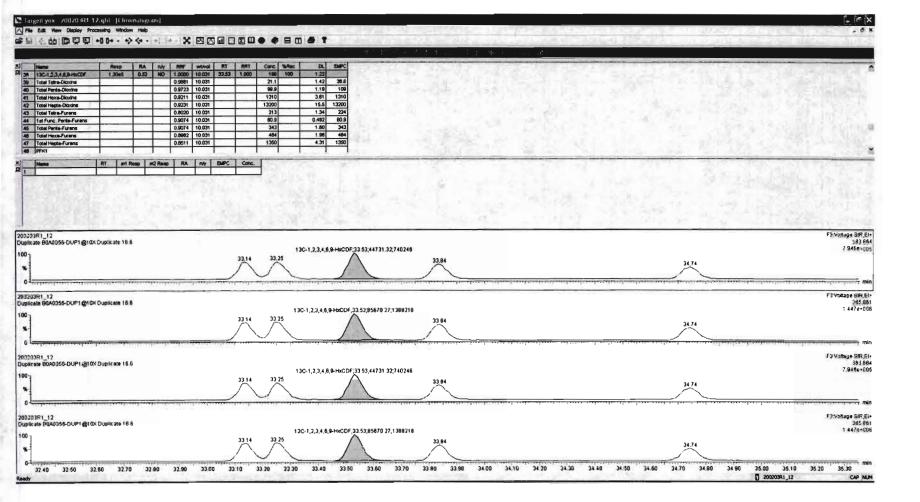
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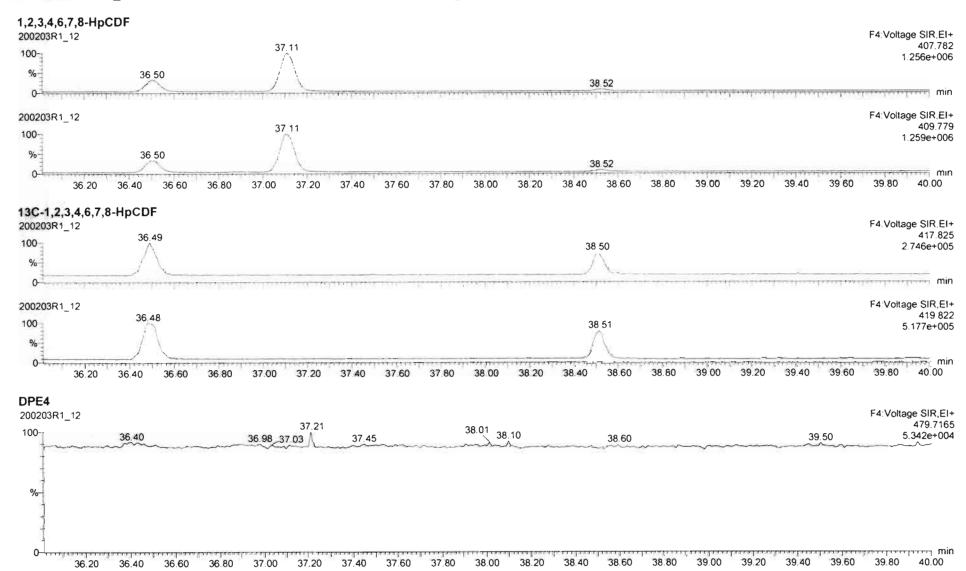




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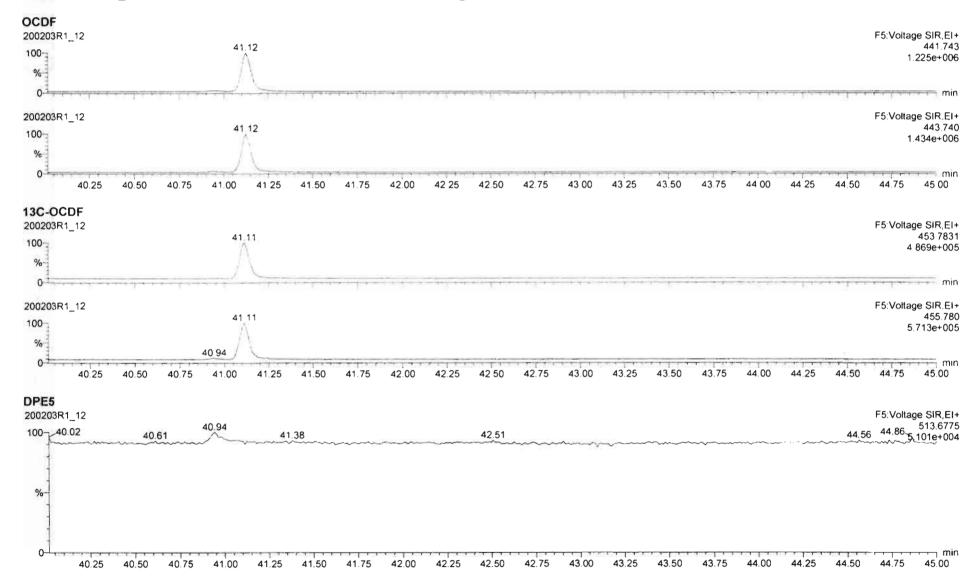
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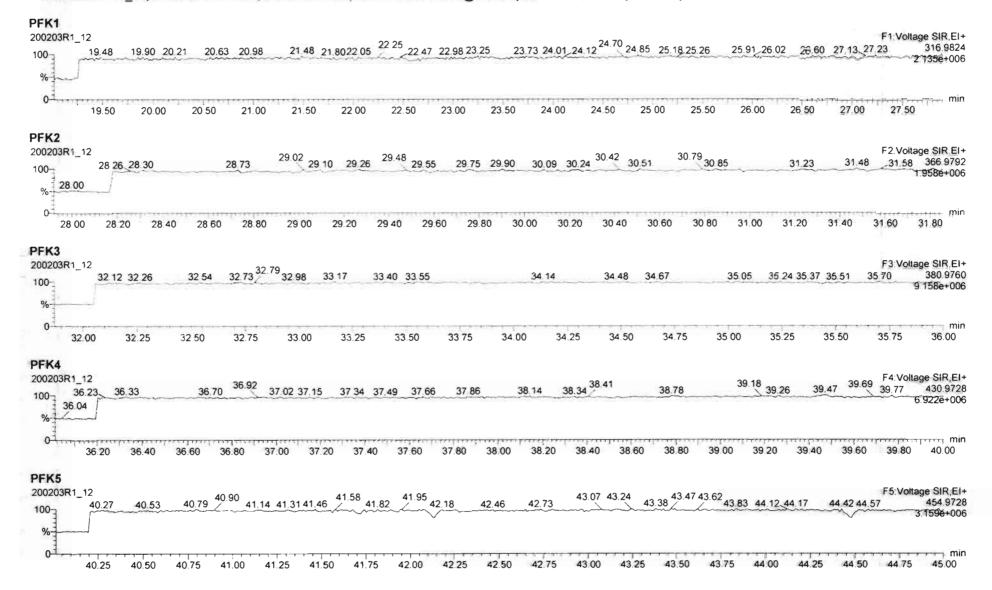
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U:\VG12.PRO\Results\200318R2\200318R2-7.qld

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C7 03/23/2020

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2	2 1,2,3,7,8-PeCDD	1.74e4	0.60	NO	0.921	10.212	31.193	31.19	1.001	1.000	4.7095		0.114	4.71
3	3 1,2,3,4,7.8-HxCDD	1.75e4	1.25	NO	1.13	10.212	34.544	34.54	1.000	1.000	4.9114		0.268	4.91
4	4 1,2,3,6,7,8-HxCDD	1.33e5	1.26	NO	0.984	10.212	34.640	34.66	1.000	1.001	37.537		0.276	37.5
5	5 1,2,3,7,8,9-HxCDD	5.20e4	1.29	NO	0.967	10.212	34.917	34.92	1.000	1.000	15.508		0.275	15.5
6	6 1,2,3,4,6,7,8-HpCDD	6.95e6	1.03	NO	1.01	10.212	38.380	38.39	1.000	1.001	2339.5		1.80	2340
7	7 OCDD	2.10e7	0.89	NO	1.05	10.212	41.521	41.54	1.000	1.001	11673	X	1.28	11700
8	8 2,3,7,8-TCDF	6.08e4	0.78	NO	0.915	10.212	25.161	25.17	1.001	1.001	16.014	(u.t)	0.282	16.0
9	9 1,2,3,7,8-PeCDF	8.22e4	1.53	NO	0.959	10.212	29.941	29.93	1.001	1.001	17.873		0.136	17.9
10	10 2,3,4,7,8-PeCDF	9.12e4	1.58	NO	1.00	10.212	30.912	30.91	1.001	1.001	17.988		0.147	18.0
11	11 1,2,3,4,7,8-HxCDF	1.21e5	1.22	NO	1.04	10.212	33.693	33.71	1.000	1.001	27.916		0.128	27.9
12	12 1,2,3,6,7,8-HxCDF	5.18e4	1.23	NO	1.01	10.212	33.809	33.82	1.000	1.001	11.716		0.135	11.7
13	13 2,3,4,6,7,8-HxCDF	3.93e4	1.21	NO	1.09	10.212	34.408	34.38	1.001	1.000	9.0365		0.150	9.04
14	14 1,2,3,7,8,9-HxCDF	1.37e4	1.23	NO	1.03	10.212	35.237	35.28	1.000	1.001	3.6092		0.157	3.61
15	15 1,2,3,4,6,7,8-HpCDF	5.80e5	1.01	NO	1.05	10.212	36.989	36.97	1.001	1.001	171.61		0.356	172
16	16 1,2,3,4,7,8,9-HpCDF	2.45e4	1.01	NO	1.21	10.212	39.007	39.02	1.000	1.000	8.6433		0.438	8.64
17	17 OCDF	8.81e5	0.90	NO	0.947	10.212	41.702	41.71	1.000	1.000	409.43		0.394	409
18	18 13C-2,3,7.8-TCDD	7.01e5	0.79	NO	1.18	10.212	26.089	26.11	1.029	1.030	115.04	58.7	0.437	
19	19 13C-1,2,3,7,8-PeCDD	7.85e5	0.64	NO	0.864	10.212	31.344	31.17	1.236	1.229	176.59	90.2	0.224	
20	20 13C-1,2,3,4,7,8-HxCDD	6.15e5	1.28	NO	0.754	10.212	34.539	34.53	1.014	1.014	160.82	82.1	0.430	-
21	21 13C-1,2,3,6,7,8-HxCDD	7.06e5	1.28	NO	0.925	10.212	34.648	34.64	1.017	1.017	150.51	76.9	0.350	
22	22 13C-1,2,3,7,8,9-HxCDD	6.79e5	1.27	NO	0.829	10.212	34.910	34.91	1.025	1.025	161.43	82.4	0.391	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.78e5	1.05	NO	0.598	10.212	38.378	38.37	1.127	1.126	190.60	97.3	0.487	
24	24 13C-OCDD	6.70e5	0.91	NO	0.571	10.212	41.535	41.52	1.219	1.219	231.49	59.1	0.253	
25	25 13C-2,3,7,8-TCDF	8.12e5	0.78	NO	1.09	10.212	25.097	25.14	0.990	0.991	108.27	55.3	0.463	1
26	26 13C-1,2,3,7,8-PeCDF	9.39e5	1.57	NO	0.876	10.212	29.997	29.92	1.183	1.180	155.52	79.4	0.446	
27	27 13C-2,3,4,7,8-PeCDF	9.89e5	1.60	NO	0.844	10.212	31.022	30.88	1.223	1.218	170.27	86.9	0.464	
28	28 13C-1,2,3,4,7,8-HxCDF	8.17e5	0.52	NO	1.00	10.212	33.683	33.69	0.989	0.989	161.09	82.3	0.286	
29	29 13C-1,2,3,6,7,8-HxCDF	8.55e5	0.52	NO	1.12	10.212	33.792	33.80	0.992	0.992	150.80	77.0	0.256	
30	30 13C-2,3,4,6,7,8-HxCDF	7.80e5	0.52	NO	1.04	10.212	34.375	34.37	1.009	1.009	148.49	75.8	0.276	
31	31 13C-1,2,3,7,8,9-HxCDF	7.23e5	0.52	NO	0.873	10.212	35.250	35.24	1.035	1.034	163.21	83.3	0.328	

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5. ID: 190 Name: 200318R2_7, Date: 19-Mar-2020, Time: 08:17:35, ID: 1903654-08RE3 PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013

LOUGE	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC	
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.32e5	0.44	NO	0.771	10.212	36.971	36.95	1.085	1.085	161.58	82.5	0.312		
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.60e5	0.44	NO	0.519	10.212	39.062	39.01	1.147	1.145	174.54	89.1	0.463	Chilphila	Wather: 2003/185120-75
34	34 13C-OCDF	8.90e5	0.89	NO	0.696	10.212	41.716	41.70	1.225	1.224	252.19	64.4	0.301		
35	35 37CI-2,3,7,8-TCDD	2.66e5			1.17	10.212	26.099	26.14	1.029	1.031	44.074	56.3	0.0787		
36	36 13C-1,2.3,4-TCDD	1.01e6	0.78	NO	1.00	10.212	25.360	25.36	1.000	1.000	195.84	100	0.518		/
37	37 13C-1,2,3,4-TCDF	1.35e6	0.80	NO	1.00	10.212	23.190	23.58	1.000	1.000	195.84	100	0.504		1
38	38 13C-1,2,3,4,6,9-HxCDF	9.93e5	0.51	NO	1.00	. 10.212	34.070	34.06	1.000	1.000	195.84	100	0.286		
39	39 Total Tetra-Dioxins				0.983	10.212	24.620		0.000		46.418		0.108	46.4	
40	40 Total Penta-Dioxins				0.921	10.212	29.960		0.000		101.73		0.114	102	
41	41 Total Hexa-Dioxins				0.984	10.212	33.635		0.000		627.79		0.284	628	
42	42 Total Hepta-Dioxins				1.01	10.212	37.640		0.000		4926.7		1.80	4930	
43	43 Total Tetra-Furans				0.915	10.212	23.610		0.000		95.492		0.282	100	P
44	44 1st Func. Penta-Furans				0.959	10.212	27.490		0.000		109.74		0.0444	110	P
45	45 Total Penta-Furans				0.959	10.212	29.275		0.000		119.24		0.145	119	ı
46	46 Total Hexa-Furans				1.09	10.212	33.555		0.000		222.26		0.136	222	
47	47 Total Hepta-Furans				1.05	10.212	37.835		0.000		583.36		0.419	583	1

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5. ID: 191 Name: 200318R2_7, Date: 19-Mar-2020, Time: 08:17:35, ID: 1903654-08RE3 PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013

Tetra-Dioxins

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.99	6.206e4	8.747e4	6.042e3	8.453e3	0.71	NO	1.450e4	4.1203	4.1203	0.108
2	Total Tetra-Dioxins	22.47	3.602e4	4.203e4	4.428e3	5.462e3	0.81	NO	9.890e3	2.8113	2.8113	0.108
3	Total Tetra-Dioxins	22.83	4.817e4	6.804e4	5.238e3	6.771e3	0.77	NO	1.201e4	3.4134	3.4134	0.108
4	Total Tetra-Dioxins	23.91	1.492e4	2.389e4	1.973e3	2.929e3	0.67	NO	4.902e3	1.3935	1.3935	0.108
5	Total Tetra-Dioxins	24.15	1.438e5	1.939e5	7.360e3	1.026e4	0.72	NO	1.762e4	5.0072	5.0072	0.108
6	Total Tetra-Dioxins	24.24	8.862e4	1.052e5	6.882e3	8.908e3	0.77	NO	1.579e4	4.4884	4.4884	0.108
7	Total Tetra-Dioxins	24.46	3.857e4	4.669e4	3.211e3	4.345e3	0.74	NO	7.556e3	2.1479	2.1479	0.108
8	Total Tetra-Dioxins	24.76	2.618e4	3.381e4	2.369e3	2.978e3	0.80	NO	5.347e3	1.5199	1.5199	0.108
9	Total Tetra-Dioxins	24.96	7.515e4	9.785e4	6.709e3	8.575e3	0.78	NO	1.528e4	4.3443	4.3443	0.108
10	Total Tetra-Dioxins	25.36	6.542e4	7.778e4	5.242e3	6.664e3	0.79	NO	1.191e4	3.3841	3.3841	0.108
11	Total Tetra-Dioxins	25.50	1.978e4	2.762e4	1.391e3	1.994e3	0.70	NO	3.385e3	0.96214	0.96214	0.108
12	Total Tetra-Dioxins	25.83	5.321e4	6.619e4	5.506e3	7.601e3	0.72	NO	1.311e4	3.7257	3.7257	0.108
13	Total Tetra-Dioxins	25.94	4.904e4	5.922e4	3.566e3	4.360e3	0.82	NO	7.926e3	2.2529	2.2529	0.108
14	2,3,7,8-TCDD	26.14	4.095e4	5.777e4	2.893e3	4.021e3	0.72	NO	6.914e3	1.9652	1.9652	0.108
15	Total Tetra-Dioxins	26.48	7.728e4	1.002e5	6.386e3	8.120e3	0.79	NO	1.451e4	4.1235	4.1235	0.108
16	Total Tetra-Dioxins	26.63	1.753e4	2.288e4	1.226e3	1.442e3	0.85	NO	2.667e3	0.75818	0.75818	0.108

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Quantify Totals Report MassLynx 4.1 SCN815

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Penta-Dioxins

Correction	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.93	4.574e5	7.585e5	4.022e4	6.574e4	0.61	NO	1.060e5	28.699	28.699	0.114
2	Total Penta-Dioxins	29.45	2.244e5	3.770e5	1.387e4	2.305e4	0.60	NO	3.692e4	9.9983	9.9983	0.114
3	Total Penta-Dioxins	29.98	2.473e5	4.298e5	1.513e4	2.446e4	0.62	NO	3.959e4	10.723	10.723	0.114
4	Total Penta-Dioxins	30.12	2.015e5	3.165e5	1.112e4	1.789e4	0.62	NO	2.901e4	7.8571	7.8571	0.114
5	Total Penta-Dioxins	30.23	1.575e5	2.526e5	9.570e3	1.576e4	0.61	NO	2.533e4	6.8613	6.8613	0.114
6	Total Penta-Dioxins	30.44	4.458e5	7.216e5	3.155e4	5.028e4	0.63	NO	8.183e4	22.163	22.163	0.114
7	Total Penta-Dioxins	30.74	4.272e4	7.829e4	2.942e3	4.472e3	0.66	NO	7.414e3	2.0079	2.0079	0.114
8	1,2,3,7,8-PeCDD	31.19	1.233e5	2.108e5	6.488e3	1.090e4	0.60	NO	1.739e4	4.7095	4.7095	0.114
9	Total Penta-Dioxins	31.26	1.263e5	2.020e5	6.520e3	1.089e4	0.60	NO	1.741e4	4.7157	4.7157	0.114
10	Total Penta-Dioxins	31.46	2.055e4	1.724e4	1.043e3	5.959e2	1.75	YES	0.000e0	0.00000	0.26308	0.114
11	Total Penta-Dioxins	31.57	1.059e5	1.660e5	5.835e3	8.904e3	0.66	NO	1.474e4	3.9919	3.9919	0.114

Hexa-Dioxins

1000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.10	1.051e7	8.319e6	5.243e5	4.206e5	1.25	NO	9.450e5	281.98	281.98	0.284
2	Total Hexa-Dioxins	33.64	1.207e6	9.916e5	5.372e4	4.282e4	1.25	NO	9.653e4	28.806	28.806	0.284
3	Total Hexa-Dioxins	33.88	6.635e6	5.344e6	4.412e5	3.519e5	1.25	NO	7.931e5	236.67	236.67	0.284
4	Total Hexa-Dioxins	34.00	3.118e5	2.466e5	1.638e4	1.262e4	1.30	NO	2.900e4	8.6535	8.6535	0.284
5	1,2,3,4,7,8-HxCDD	34.54	1.785e5	1.435e5	9.706e3	7.755e3	1.25	NO	1.746e4	4.9114	4.9114	0.268
6	1,2,3,6,7,8-HxCDD	34.66	1.305e6	1.006e6	7.435e4	5.891e4	1.26	NO	1.333e5	37.537	37.537	0.276
7	Total Hexa-Dioxins	34.83	4.736e5	3.940e5	2.570e4	2.029e4	1.27	NO	4.599e4	13.724	13.724	0.284
8	1,2,3,7,8,9-HxCDD	34.92	5.104e5	4.018e5	2.925e4	2.276e4	1.29	NO	5.201e4	15.508	15.508	0.275

Hepta-Dioxins

123.64	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.36	5.063e7	4.903e7	3.892e6	3.792e6	1.03	NO	7.684e6	2587.2	2587.2	1.80
2	1,2,3,4,6,7,8-HpCDD	38.39	3.996e7	3.873e7	3.524e6	3.425e6	1.03	NO	6.949e6	2339.5	2339.5	1.80

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110: 150 Name 200313R2_7, Cate: 19 Mar 2020; Time: 08:17:35, 1D: 1903654-08RE3 PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013

Tetra-Furans

14.5	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.97	1.006e4	1.256e4	9.509e2	1.095e3	0.87	NO	2.046e3	0.53877	0.53877	0.282
2	Total Tetra-Furans	20.39	7.438e4	9.271e4	5.385e3	7.009e3	0.77	NO	1.239e4	3.2635	3.2635	0.282
3	Total Tetra-Furans	20.66	6.997e3	1.253e4	4.240e2	1.017e3	0.42	YES	0.000e0	0.00000	0.25662	0.282
4	Total Tetra-Furans	21.02	5.595e5	7.259e5	3.793e4	5.101e4	0.74	NO	8.895e4	23.423	23.423	0.282
5	Total Tetra-Furans	21.51	2.383e4	3.490e4	4.495e3	6.212e3	0.72	NO	1.071e4	2.8195	2.8195	0.282
6	Total Tetra-Furans	21.96	9.275e4	1.139e5	9.830e3	1.229e4	0.80	NO	2.212e4	5.8240	5.8240	0.282
7	Total Tetra-Furans	22.49	1.025e5	1.286e5	7.605e3	1.850e4	0.41	YES	0.000e0	0.00000	4.6031	0.282
8	Total Tetra-Furans	22.71	3.537e4	4.640e4	1.417e3	1.801e3	0.79	NO	3.218e3	0.84746	0.84746	0.282
9	Total Tetra-Furans	23.34	2.460e4	3.195e4	2.576e3	3.822e3	0.67	NO	6.399e3	1.6849	1.6849	0.282
10	Total Tetra-Furans	23.58	1.910e5	2.611e5	2.063e4	2.791e4	0.74	NO	4.854e4	12.781	12.781	0.282
11	Total Tetra-Furans	24.18	6.515e5	8.420e5	1.983e4	2.607e4	0.76	NO	4.590e4	12.086	12.086	0.282
12	Total Tetra-Furans	24.42	1.403e4	1.967e4	1.262e3	1.460e3	0.86	NO	2.722e3	0.71685	0.71685	0.282
13	Total Tetra-Furans	24.61	1.193e4	1.373e4	1.046e3	1.302e3	0.80	NO	2.349e3	0.61844	0.61844	0.282
14	Total Tetra-Furans	24.91	1.304e4	1.679e4	1.343e3	1.582e3	0.85	NO	2.925e3	0.77014	0.77014	0.282
15	Total Tetra-Furans	25.05	4.580e4	5.798e4	3.433e3	4.036e3	0.85	NO	7.469e3	1.9668	1.9668	0.282
16	2,3,7,8-TCDF	25.17	3.125e5	4.122e5	2.660e4	3.421e4	0.78	NO	6.081e4	16.014	16.014	0.282
17	Total Tetra-Furans	25.54	4.187e4	5.121e4	2.733e3	3.720e3	0.73	NO	6.453e3	1.6993	1.6993	0.282
18	Total Tetra-Furans	26.11	1.959e4	2.471e4	1.436e3	1.687e3	0.85	NO	3.123e3	0.82233	0.82233	0.282
19	Total Tetra-Furans	26.72	9.224e4	1.126e5	7.869e3	1.084e4	0.73	NO	1.871e4	4.9267	4.9267	0.282
20	Total Tetra-Furans	26.92	8.157e4	1.108e5	7.623e3	1.018e4	0.75	NO	1.781e4	4.6891	4.6891	0.282

Penta-Furans function 1

7.00 T	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.49	3.309e6	2.080e6	1.574e5	1.014e5	1.55	NO	2.587e5	54.774	54.774	0.0444
2	1st Func. Penta-Furans	27.49	3.313e6	2.080e6	1.581e5	1.015e5	1.56	NO	2.596e5	54.969	54.969	0.0444

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1140 : 4 1145 : 15 200013R2_7; Date: 19 Mar-2020; Time: 08:47:05; (D. 1903654-08RE3 PDI-075SC-B-06-08-191013 16:51; Description: PDI-075SC-B-06-08-191013

Penta-Furans

	Name Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.71	1.289e5	7.550e4	1.071e4	7.151e3	1.50	NO	1.787e4	3.7824	3.7824	0.145
2	Total Penta-Furans	28.88	1.572e6	1.012e6	1.207e5	7.821e4	1.54	NO	1.989e5	42.114	42.114	0.145
3	Total Penta-Furans	29.51	7.671e5	5.362e5	4.756e4	3.189e4	1.49	NO	7.945e4	16.820	16.820	0.145
4	Total Penta-Furans	29.72	1.119e5	7.070e4	7.082e3	4.353e3	1.63	NO	1.143e4	2.4208	2.4208	0.145
5	1,2,3,7,8-PeCDF	29.93	1.288e6	8.191e5	4.974e4	3.247e4	1.53	NO	8.221e4	17.873	17.873	0.136
6	Total Penta-Furans	30.18	5.131e5	2.966e5	3.133e4	2.022e4	1.55	NO	5.155e4	10.914	10.914	0.145
7	Total Penta-Furans	30.76	4.179e4	2.647e4	2.182e3	1.508e3	1.45	NO	3.691e3	0.78135	0.78135	0.145
8	2,3,4,7,8-PeCDF	30.91	1.201e6	7.798e5	5.587e4	3.533e4	1.58	NO	9.120e4	17.988	17.988	0.147
9	Total Penta-Furans	30.93	9.425e5	5.517e5	1.539e4	9.055e3	1.70	NO	2.444e4	5.1743	5.1743	0.145
10	Total Penta-Furans	31.81	6.143e4	3.581e4	4.011e3	2.485e3	1.61	NO	6.497e3	1.3754	1.3754	0.145

Hexa-Furans

11.73	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.66	1.344e6	1.080e6	4.076e4	3.322e4	1.23	NO	7.397e4	16.719	16.719	0.136
2	Total Hexa-Furans	32.73	4.358e6	3.523e6	1.358e5	1.103e5	1.23	NO	2.461e5	55.630	55.630	0.136
3	Total Hexa-Furans	33.06	5.046e4	4.233e4	2.496e3	2.196e3	1.14	NO	4.692e3	1.0604	1.0604	0.136
4	Total Hexa-Furans	33.25	4.716e6	3.998e6	2.289e5	1.877e5	1.22	NO	4.166e5	94.162	94.162	0.136
5	Total Hexa-Furans	33.61	4.348e4	2.741e4	1.793e3	1.465e3	1.22	NO	3.258e3	0.73644	0.73644	0.136
6	1,2,3,4,7,8-HxCDF	33.71	1.508e6	1.209e6	6.637e4	5.453e4	1.22	NO	1.209e5	27.916	27.916	0.128
7	1,2,3,6,7,8-HxCDF	33.82	5.769e5	4.408e5	2.853e4	2.325e4	1.23	NO	5.178e4	11.716	11.716	0.135
8	Total Hexa-Furans	34.09	2.741e4	2.235e4	1.265e3	1.132e3	1.12	NO	2.396e3	0.54157	0.54157	0.136
9	Total Hexa-Furans	34.26	1.522e4	6.798e3	4.791e2	3.702e2	1.29	NO	8.493e2	0.19195	0.19195	0.136
10	2.3,4,6,7,8-HxCDF	34.38	3.740e5	3.193e5	2.150e4	1.778e4	1.21	NO	3.928e4	9.0365	9.0365	0.150
11	1,2,3,7,8,9-HxCDF	35.28	1.645e5	1.398e5	7.533e3	6.140e3	1.23	NO	1.367e4	3.6092	3.6092	0.157
12	Total Hexa-Furans	35.30	1.304e5	1.070e5	2.232e3	1.919e3	1.16	NO	4.151e3	0.93818	0.93818	0.136

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Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200318R2\200318R2-7.qld

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EliD: 40 Marke, 2000/13R21_7, Cate: 40 Mark 2020, Times 93:17:05; ID: 1903654-08RE2 PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013

Page 5 of 5

Hepta-Furans

de la trace	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 201000	1,2,3,4,6,7,8-HpCDF	36.97	3.949e6	3.896e6	2.911e5	2.890e5	1.01	NO	5.801e5	171.61	171.61	0.356
2	Total Hepta-Furans	37.36	4.362e4	4.901e4	4.062e3	4.174e3	0.97	NO	8.236e3	2.8204	2.8204	0.419
3	Total Hepta-Furans	37.56	7.302e6	7.217e6	5.869e5	5.820e5	1.01	NO	1.169e6	400.29	400.29	0.419
4	1,2,3,4,7,8,9-HpCDF	39.02	1.666e5	1.631e5	1.233e4	1.221e4	1.01	NO	2.454e4	8.6433	8.6433	0.438

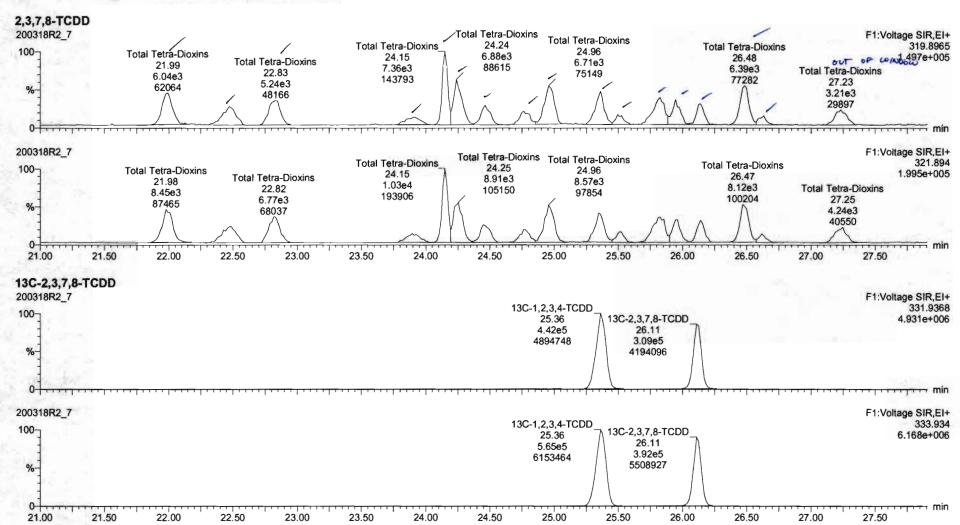
Work Order 1903654 Page 456 of 1184

Untitled

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Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5 1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

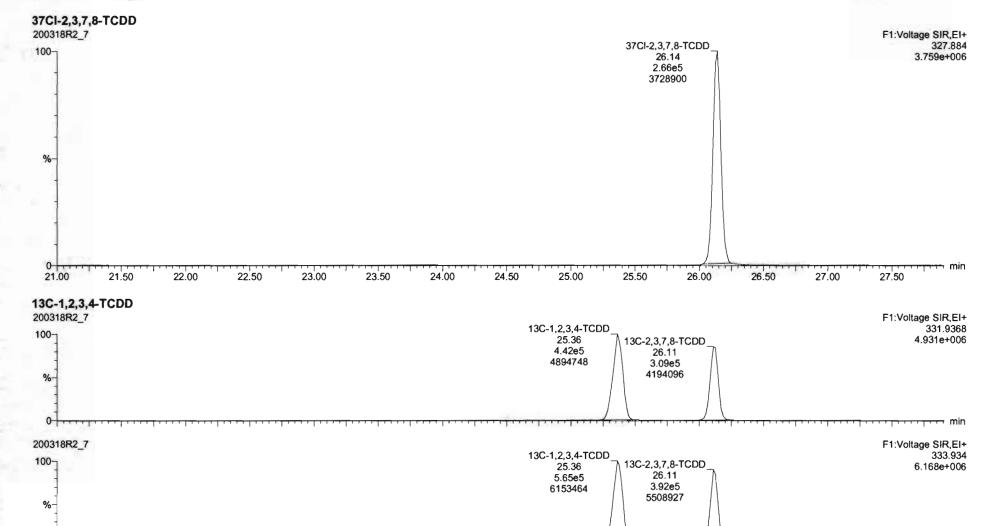


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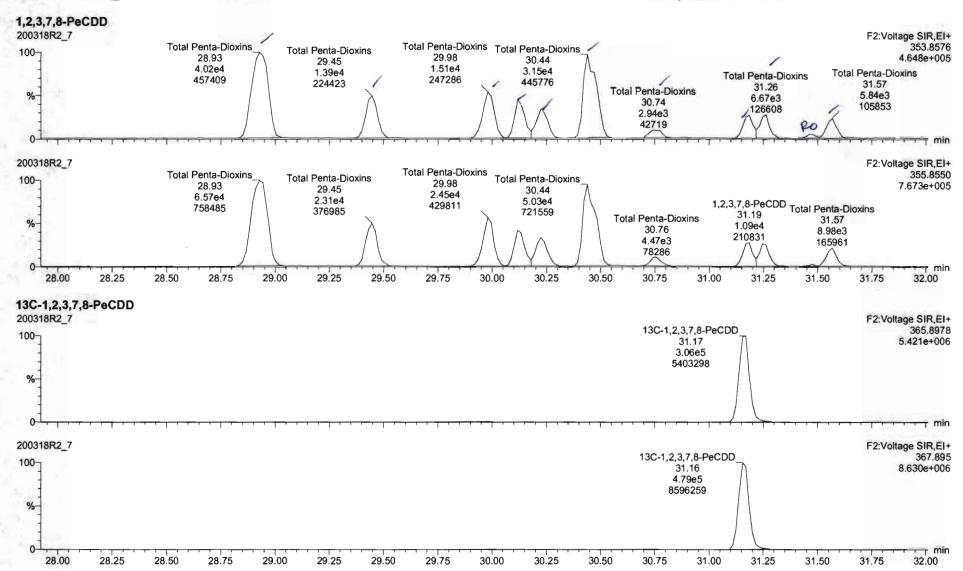
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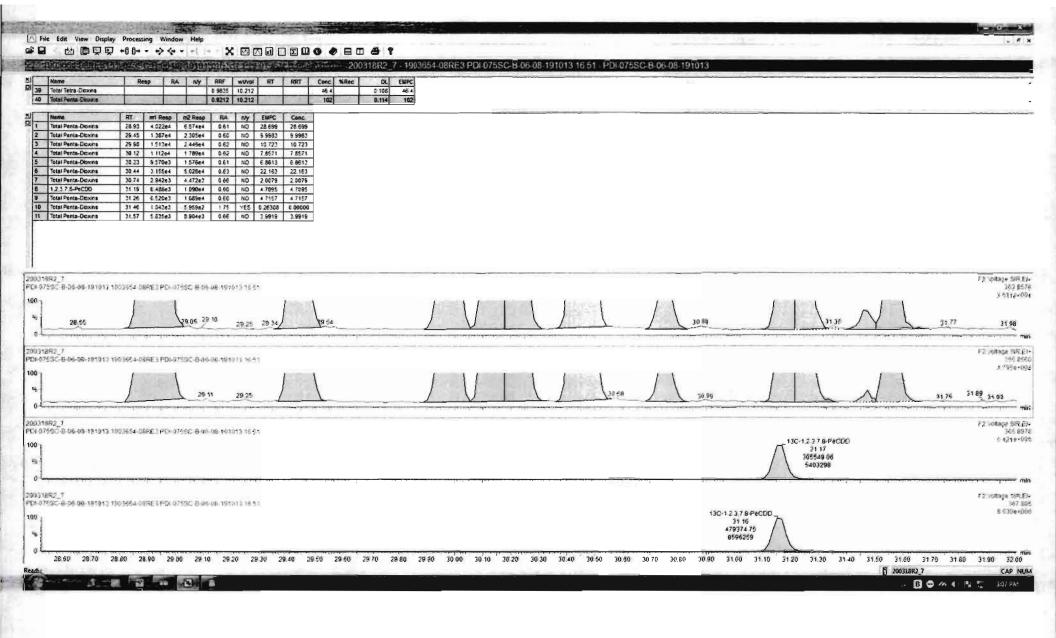
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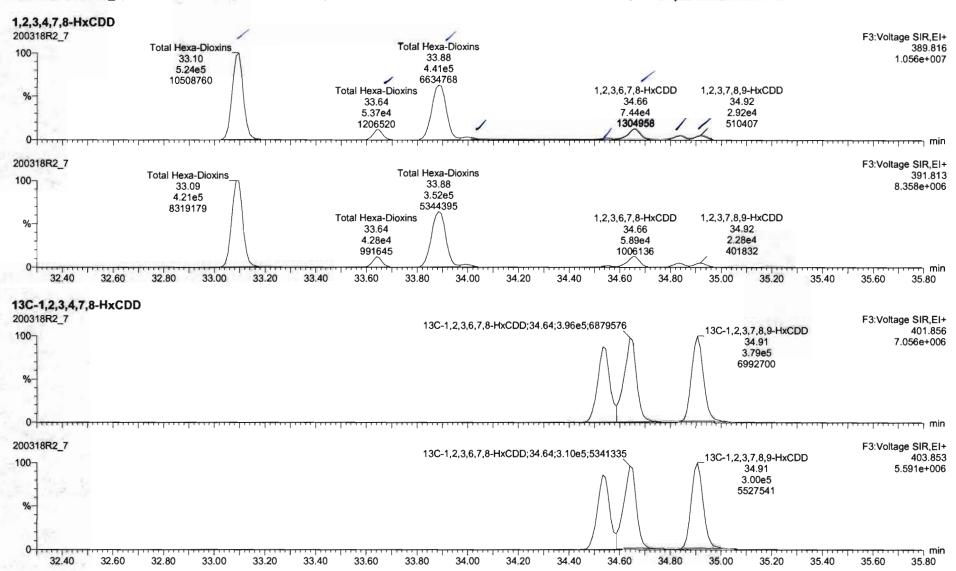
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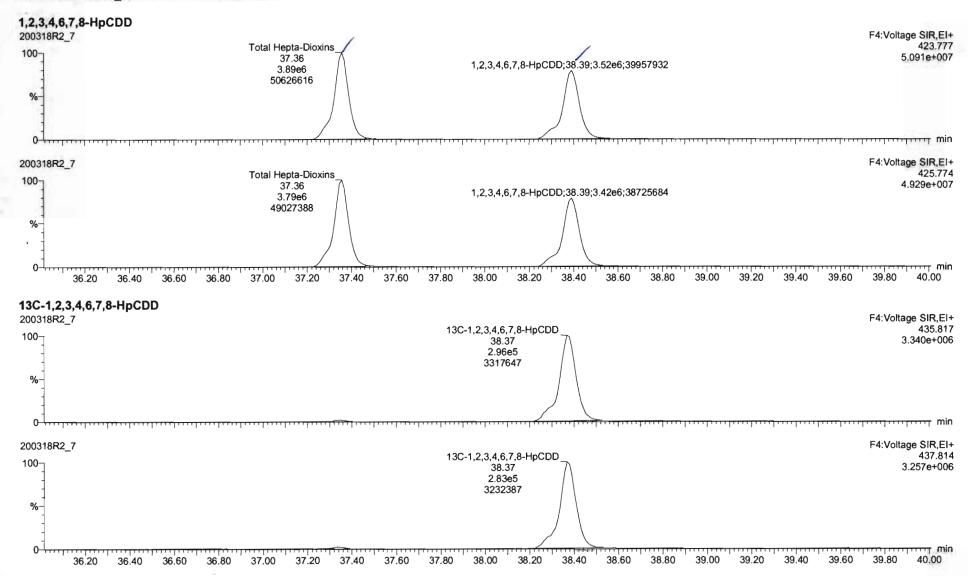
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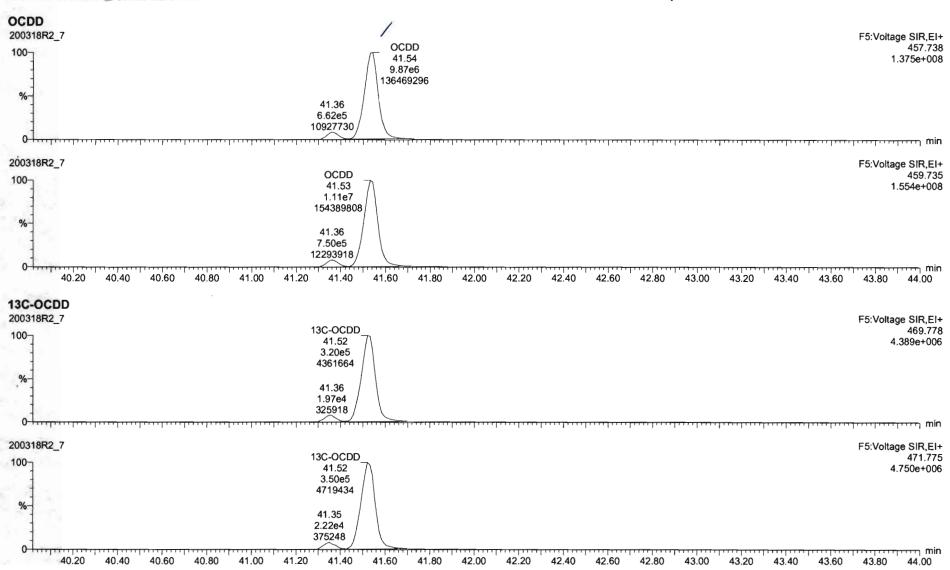
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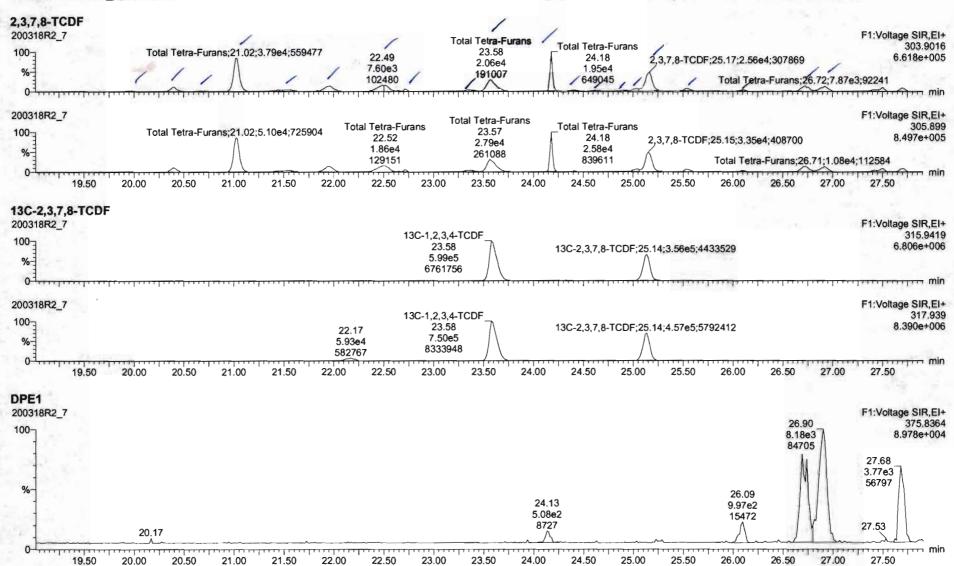
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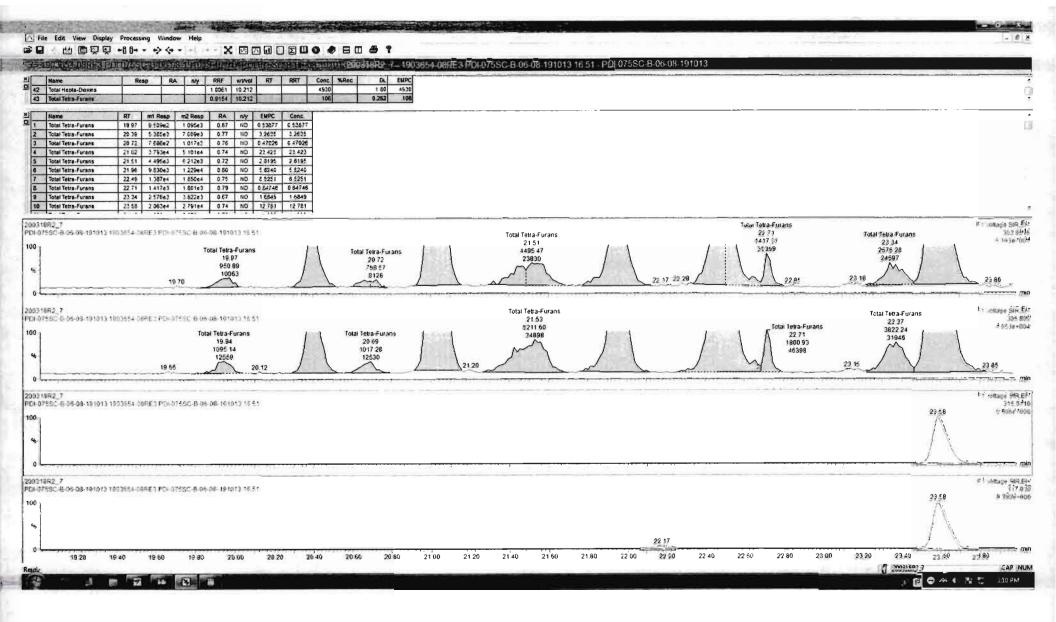
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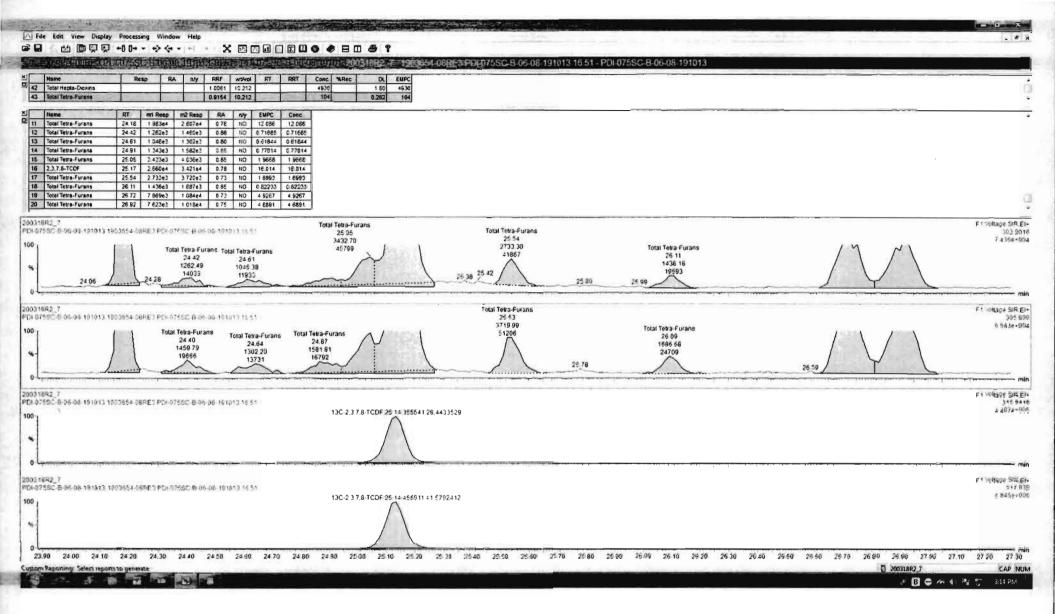


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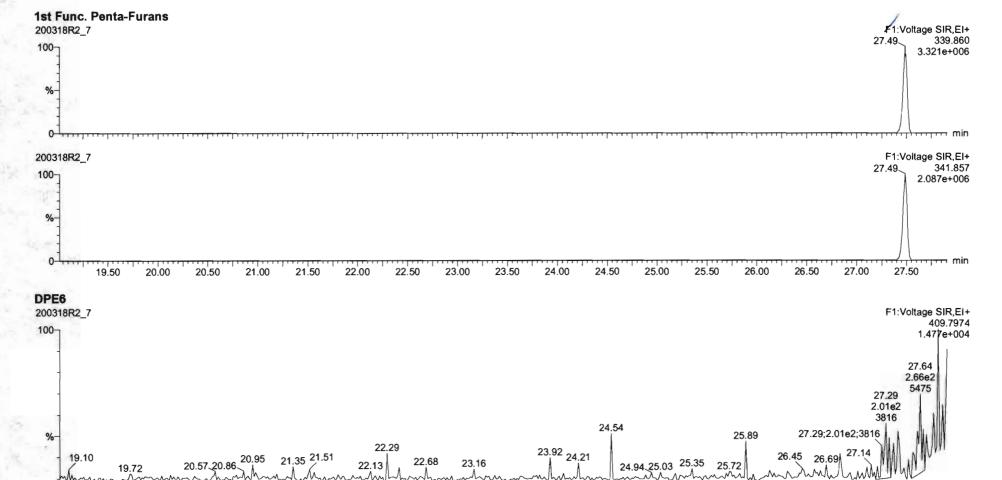




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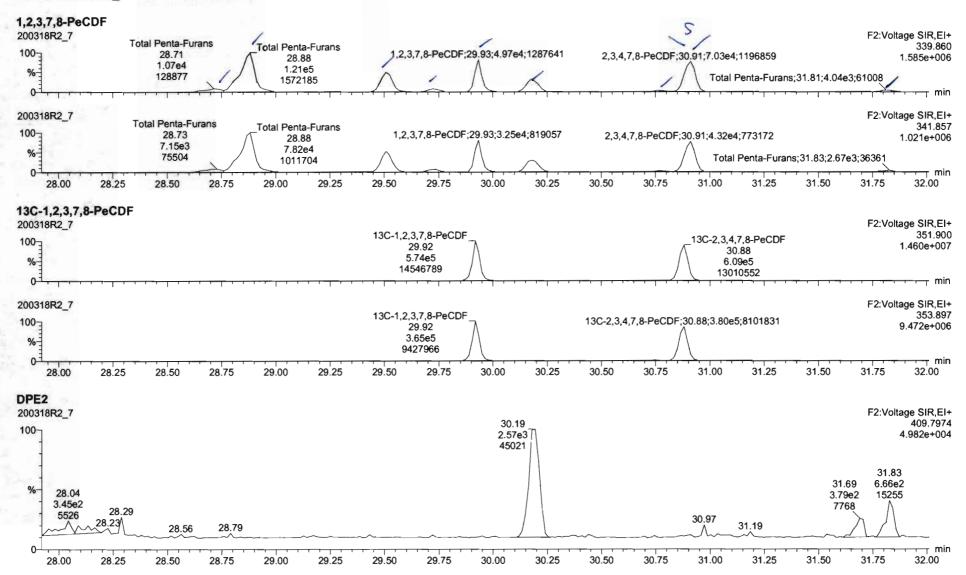
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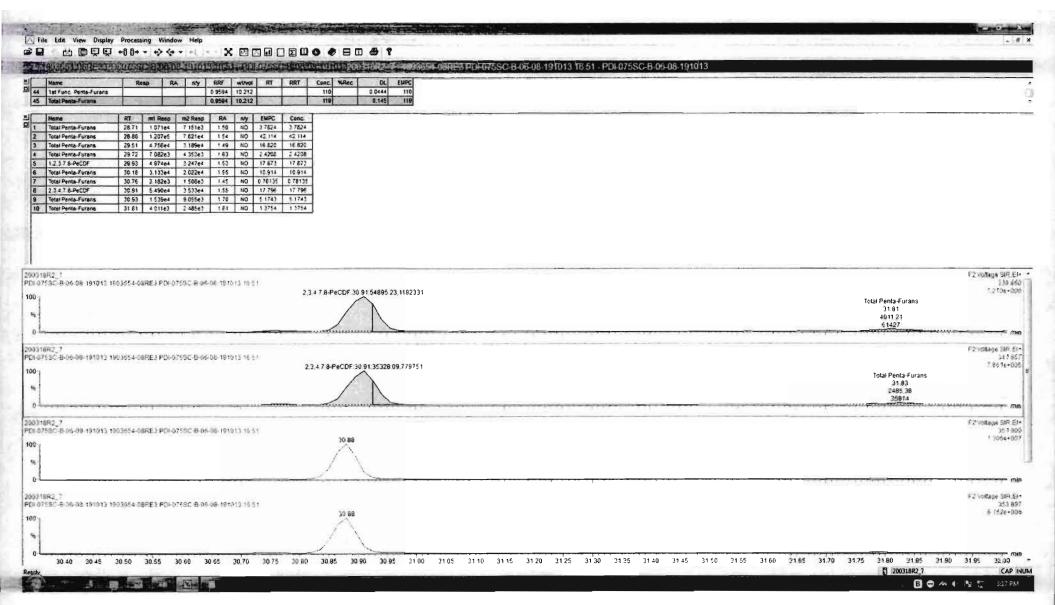
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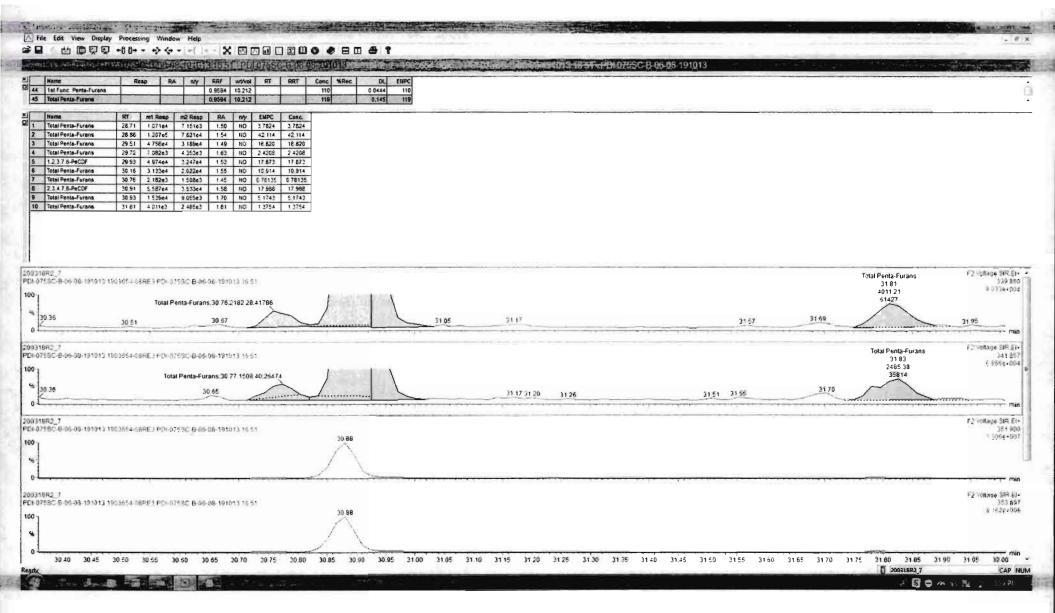
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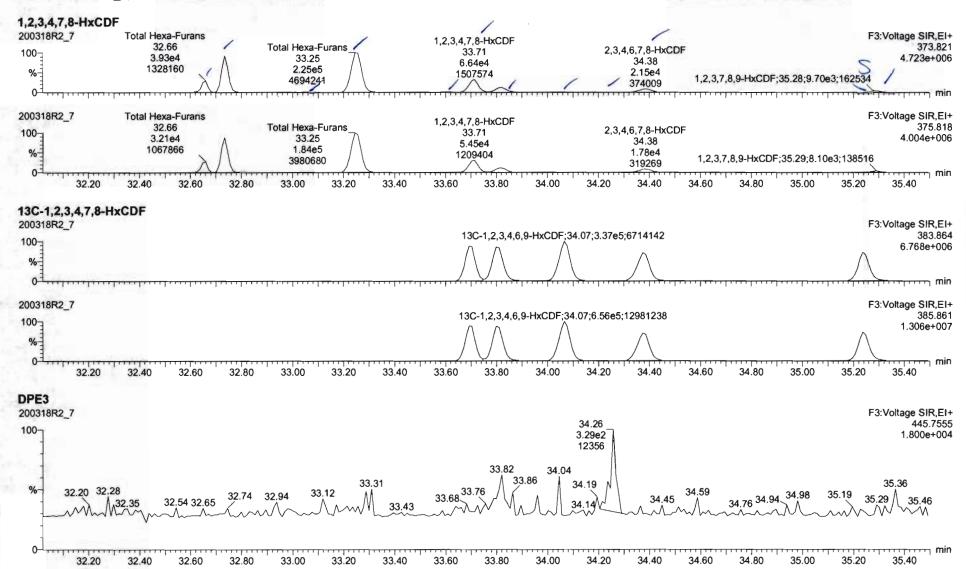


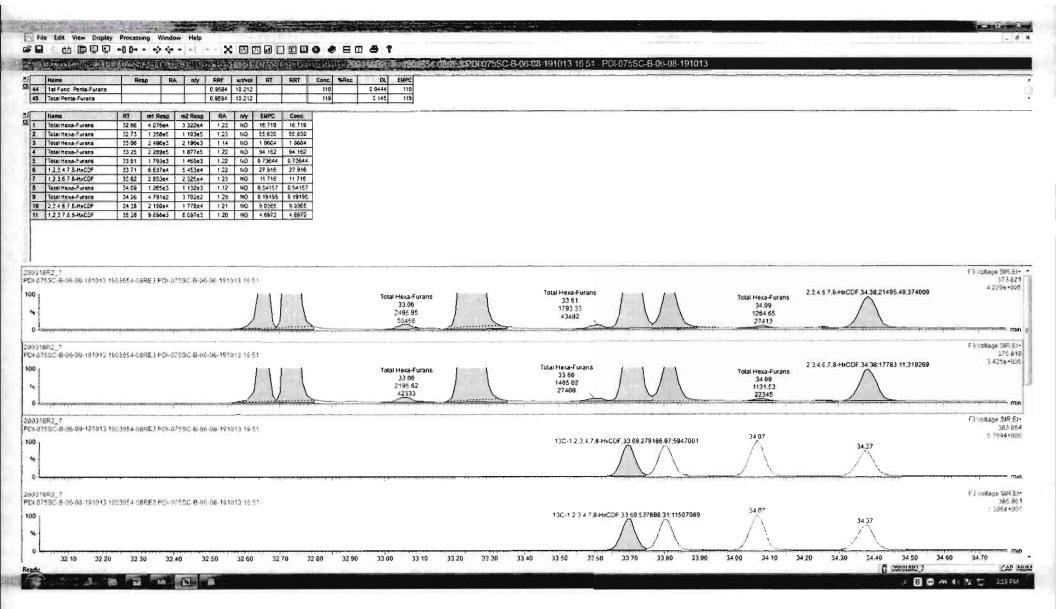
Work Order 1903654 Page 469 of 1184



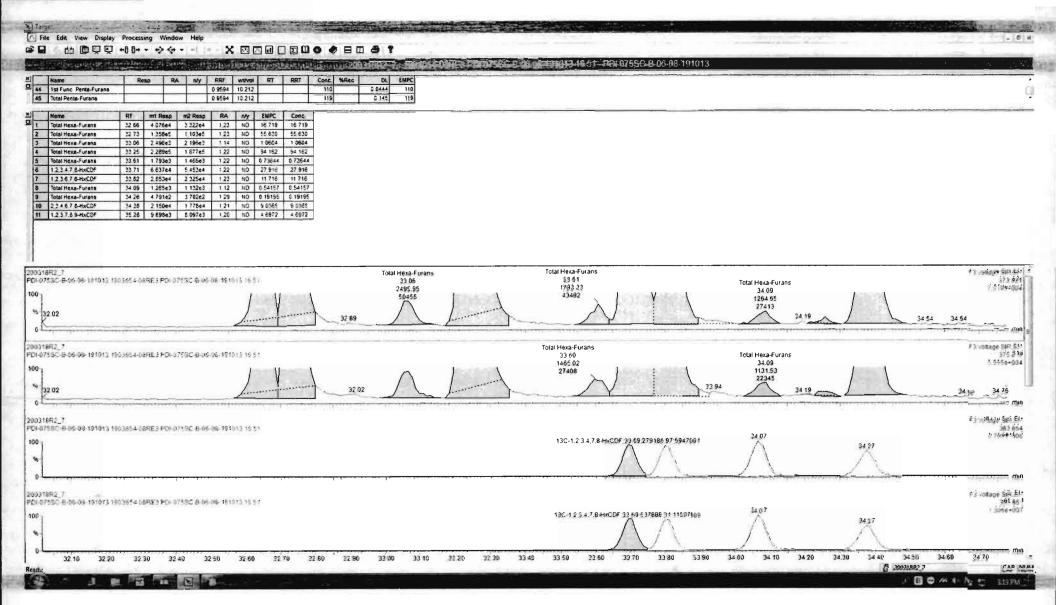
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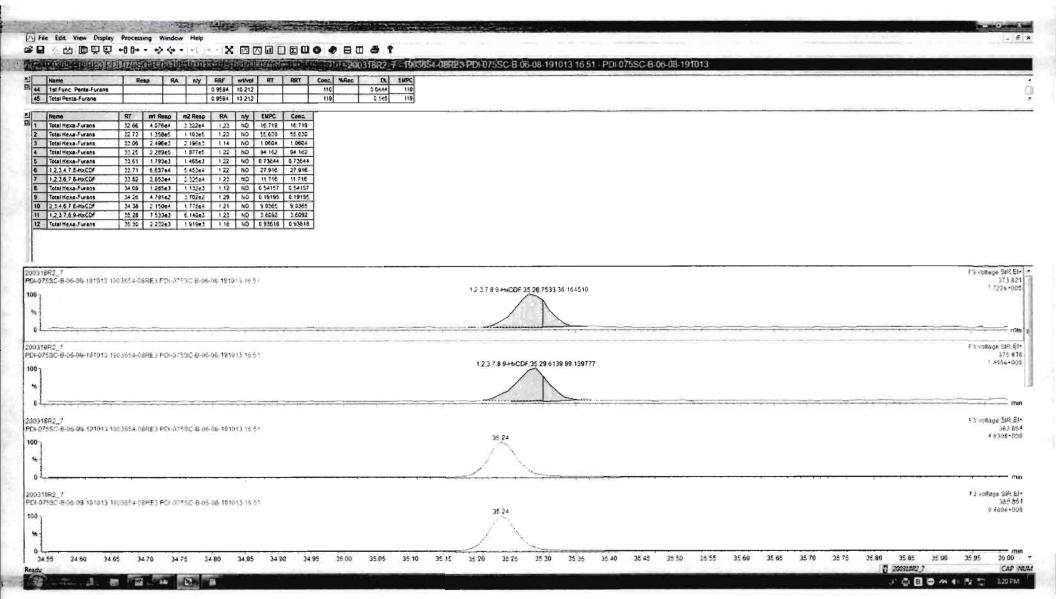




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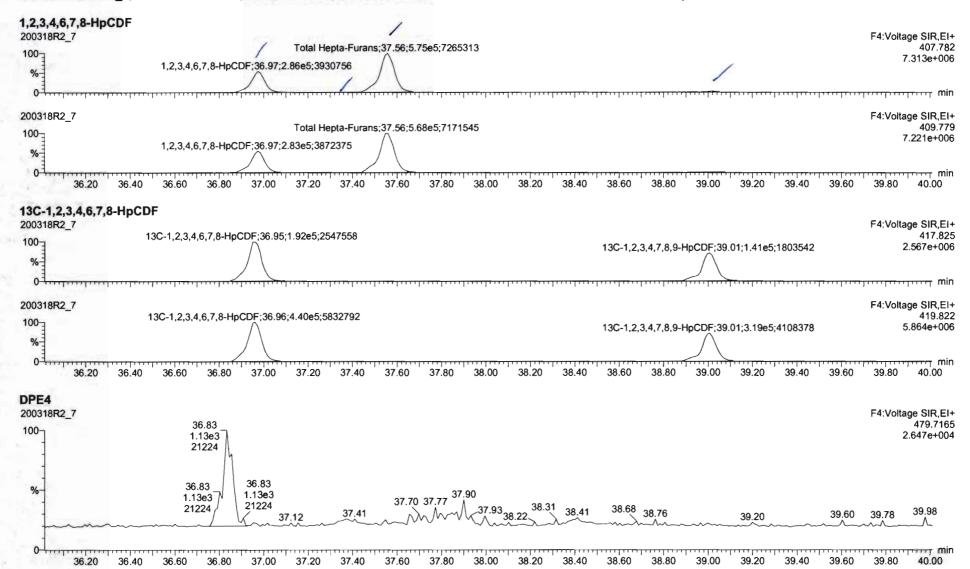
Work Order 1903654 Page 473 of 1184

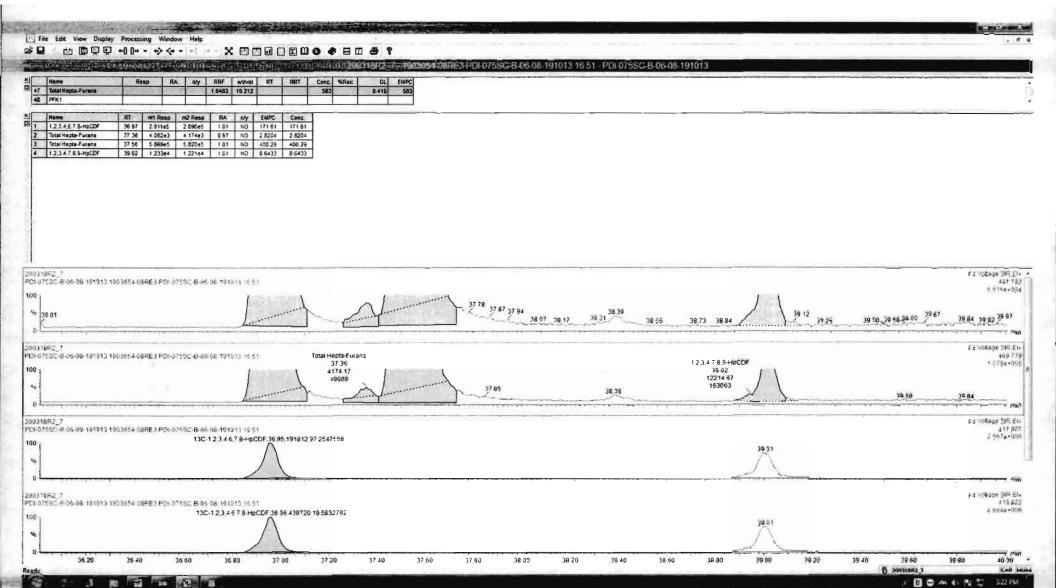


Work Order 1903654 Page 474 of 1184

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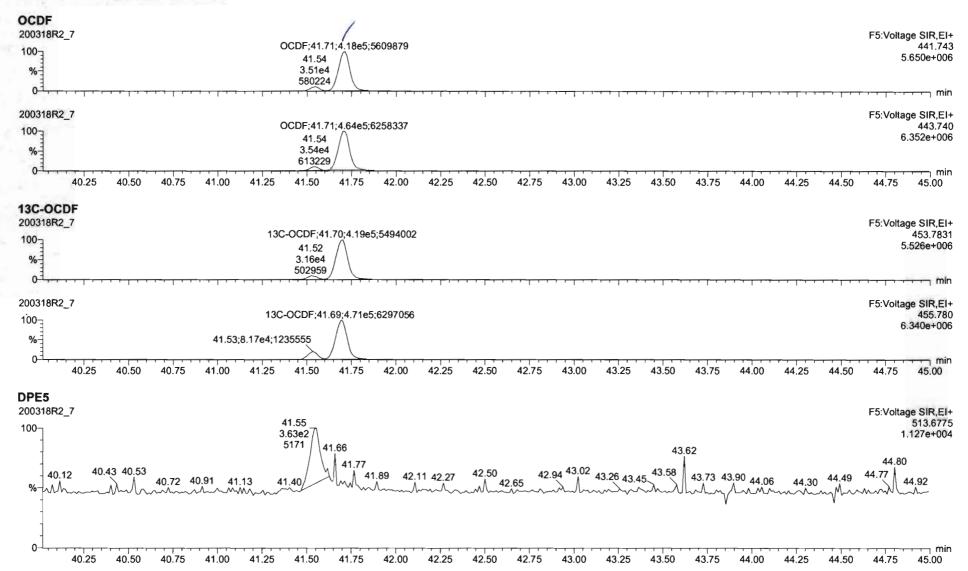




Work Order 1903654 Page 476 of 1184

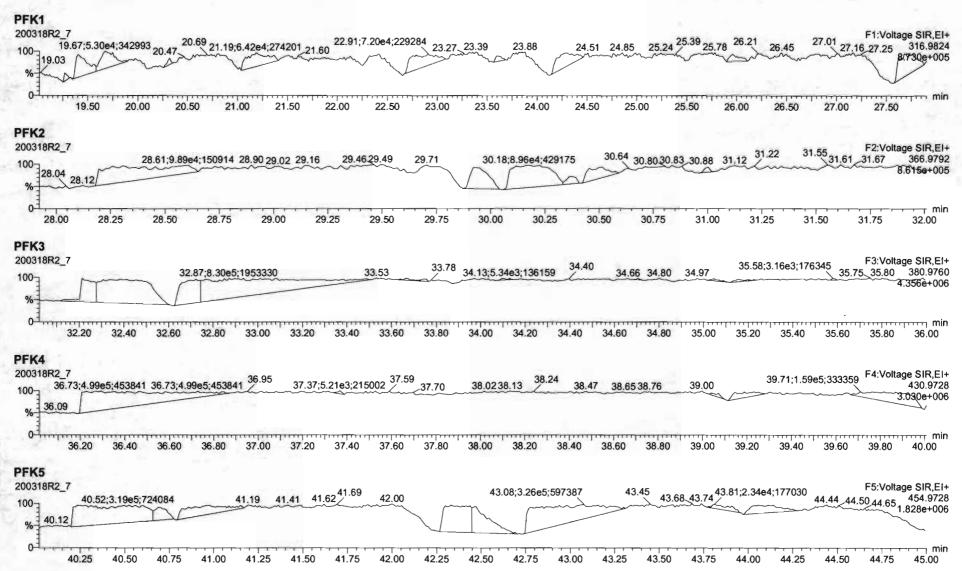
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Last Altered: Printed: Thursday, March 19, 2020 09:12:04 Pacific Daylight Time Thursday, March 19, 2020 09:12:16 Pacific Daylight Time



Page 1 of 1

Dataset:

U:\VG12.PRO\Results\200319R1\200319R1-15.qld

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Printed:

Friday, March 20, 2020 08:01:38 Pacific Daylight Time

GRB 03/20/2020

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Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

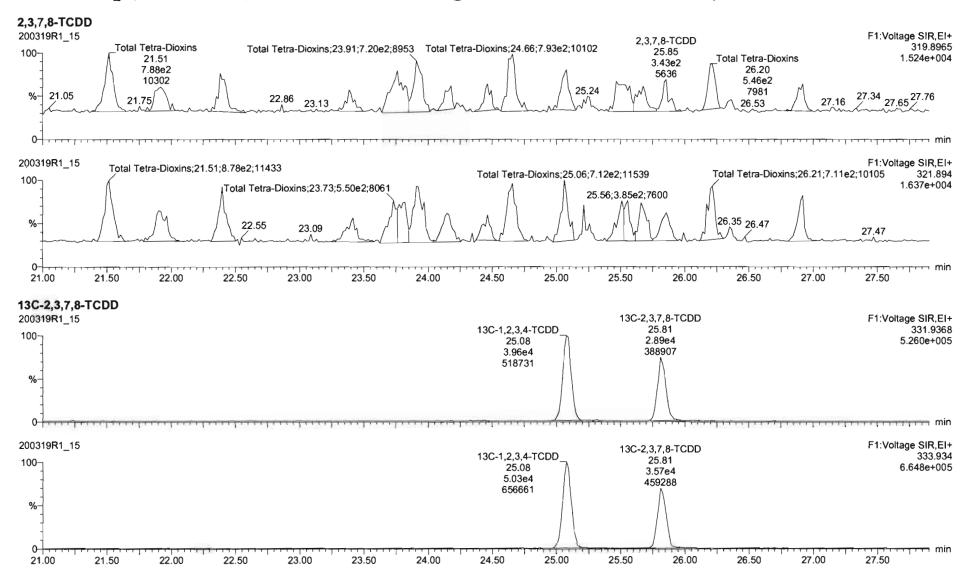
Name: 200319R1_15, Date: 20-Mar-2020, Time: 03:27:05, ID: 1903654-08RE3@5X PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013

Sur-	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	7 OCDD	1.54e6	0.89	NO	1.05	10.212	41.371	41.38	1.000	1.000	12985		6.10	13000
2	24 13C-OCDD	4.42e4	0.91	NO	0.571	10.212	41.458	41.37	1.219	1.217	169.11	43.2	1.02	
3	35 37CI-2,3,7,8-TCDD	2.59e4			1.17	10.212	25.806	25.84	1.029	1.030	48.057	61.3	0.304	
4	36 13C-1,2,3,4-TCDD	8.99e4	0.79	NO	1.00	10.212	25.050	25.08	1.000	1.000	195.84	100	1.29	
5	37 13C-1,2,3,4-TCDF	1.54e5	0.79	NO	1.00	10.212	23.190	23.16	1.000	1.000	195.84	100	2.72	
6	38 13C-1,2,3,4,6,9-HxCDF	8.97e4	0.54	NO	1.00	10.212	33.880	34.00	1.000	1.000	195.84	100	1.18	

Page 479 of 1184 Work Order 1903654

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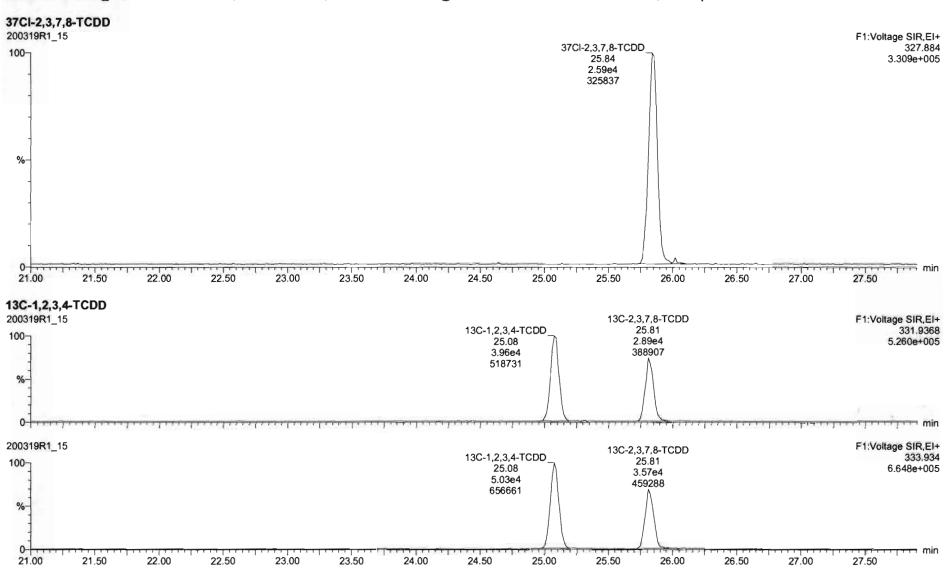
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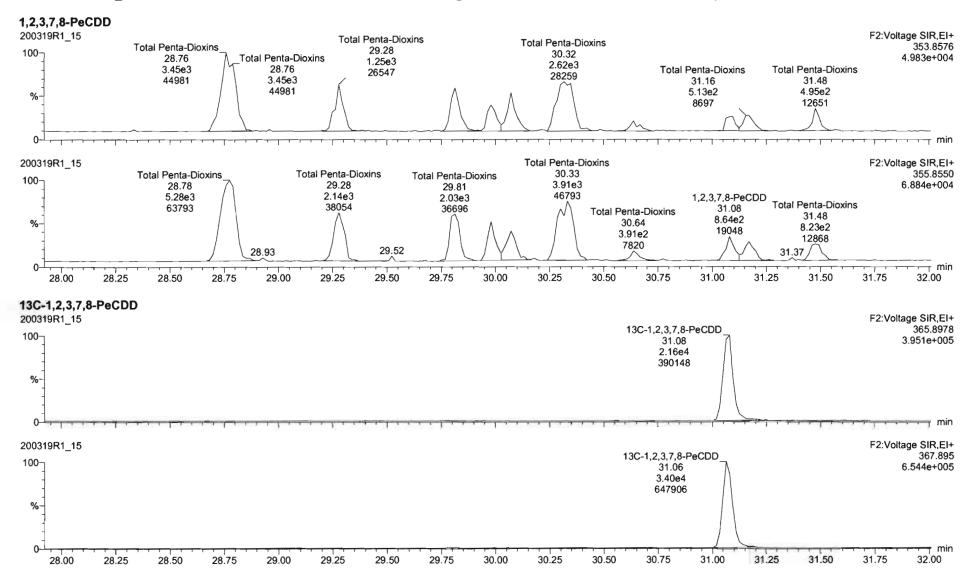
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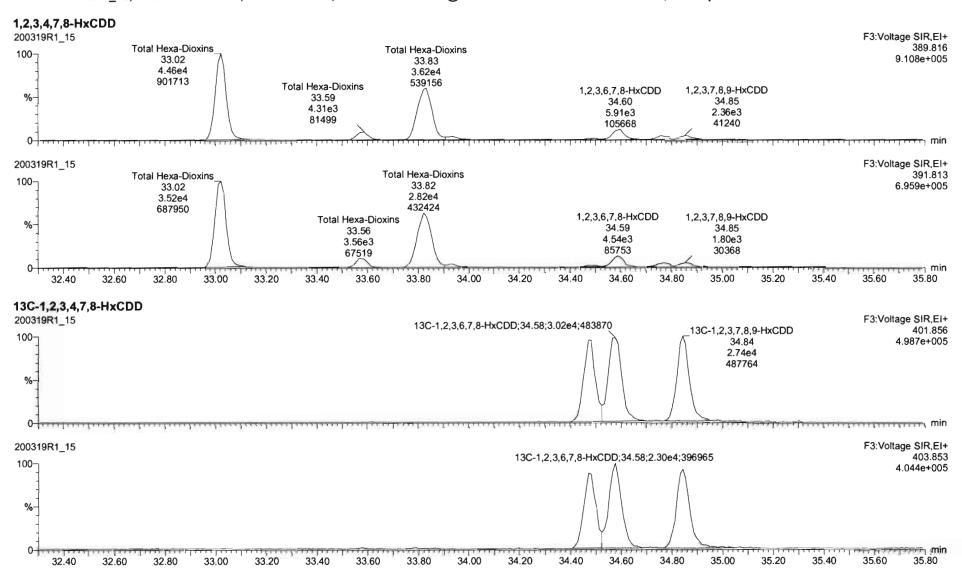
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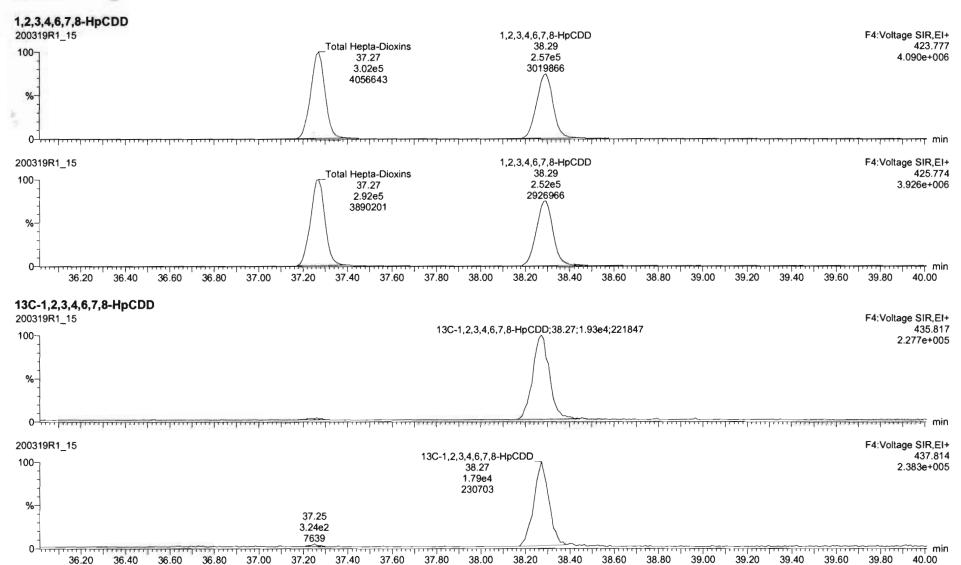
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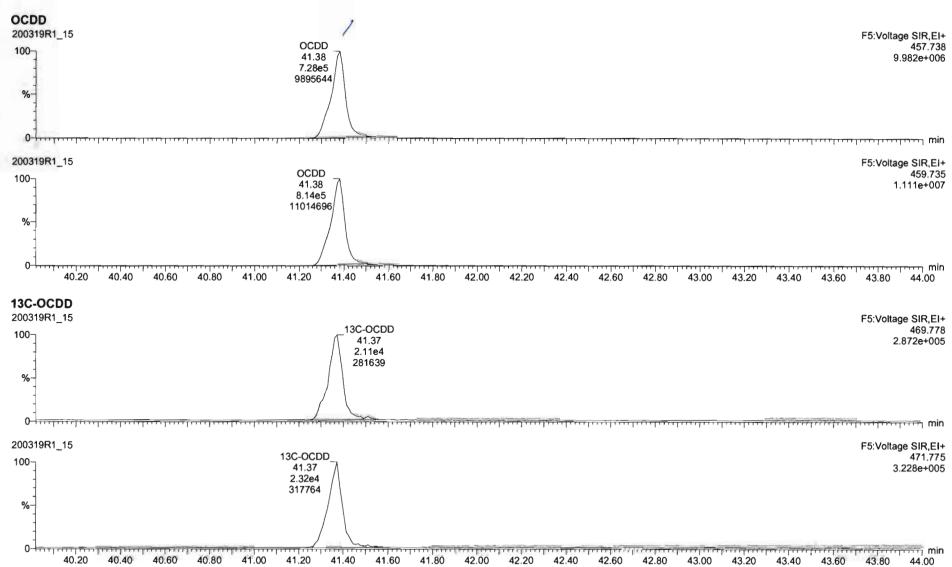
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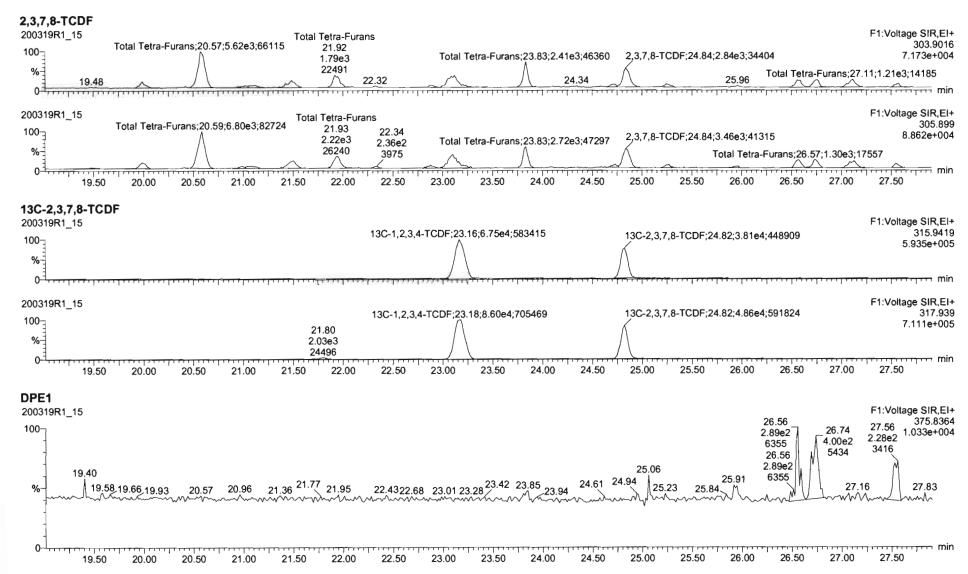
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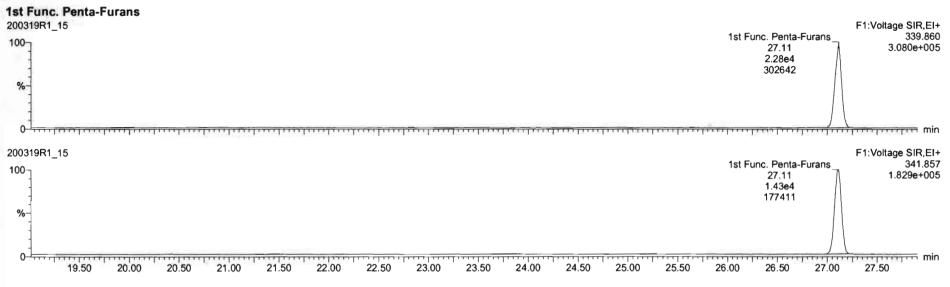
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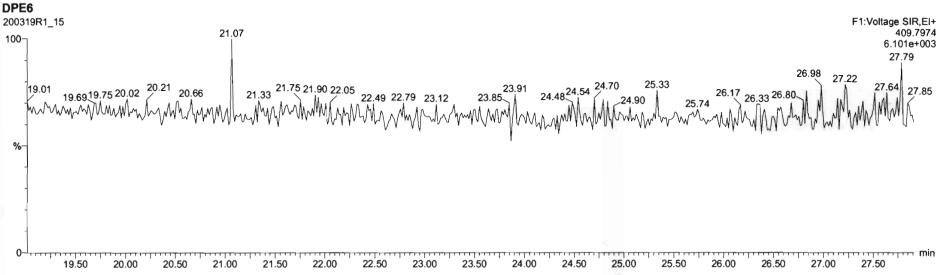


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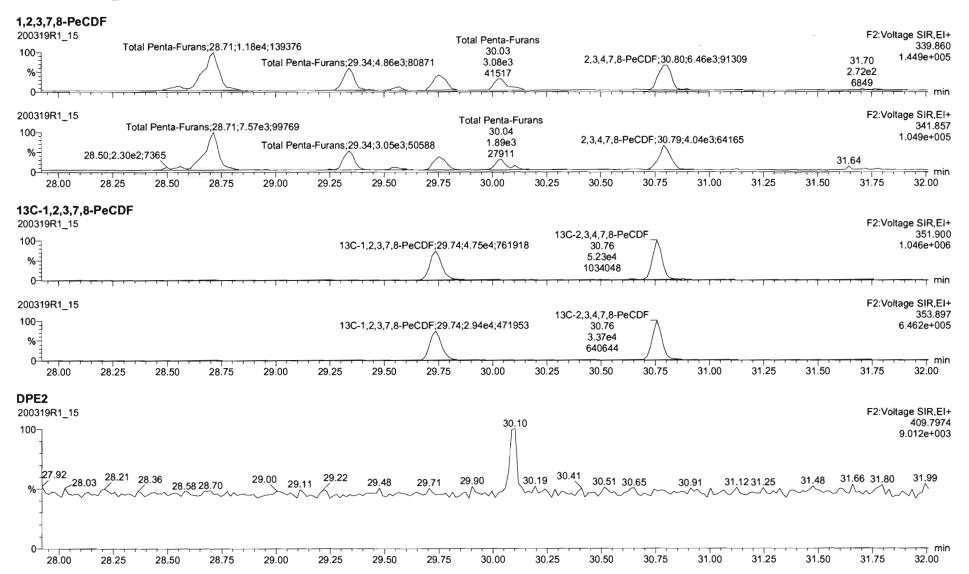




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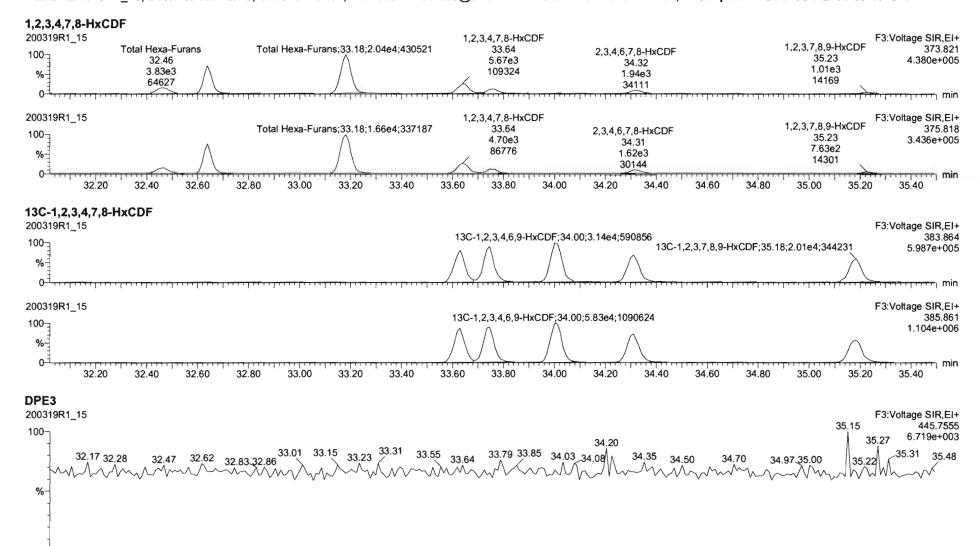
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Dataset:

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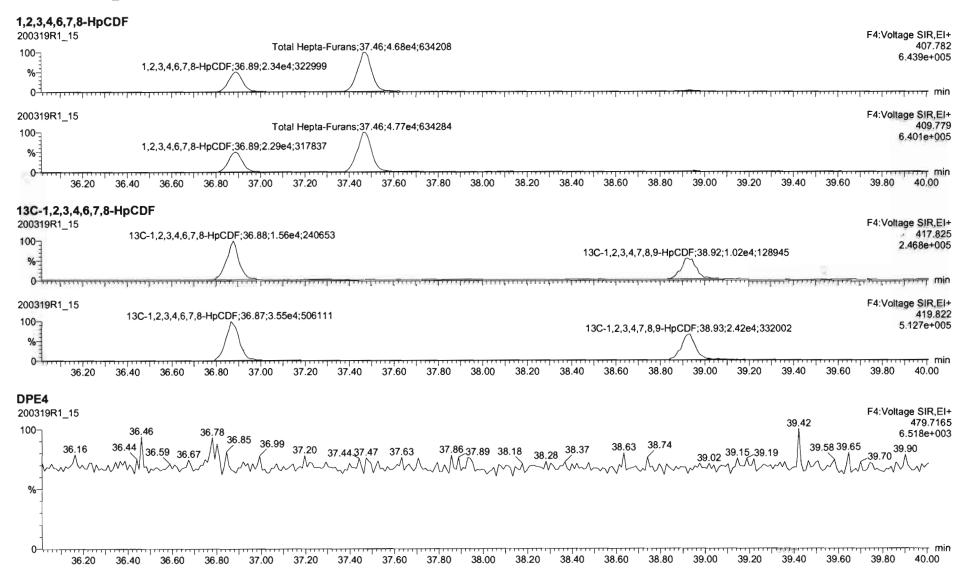
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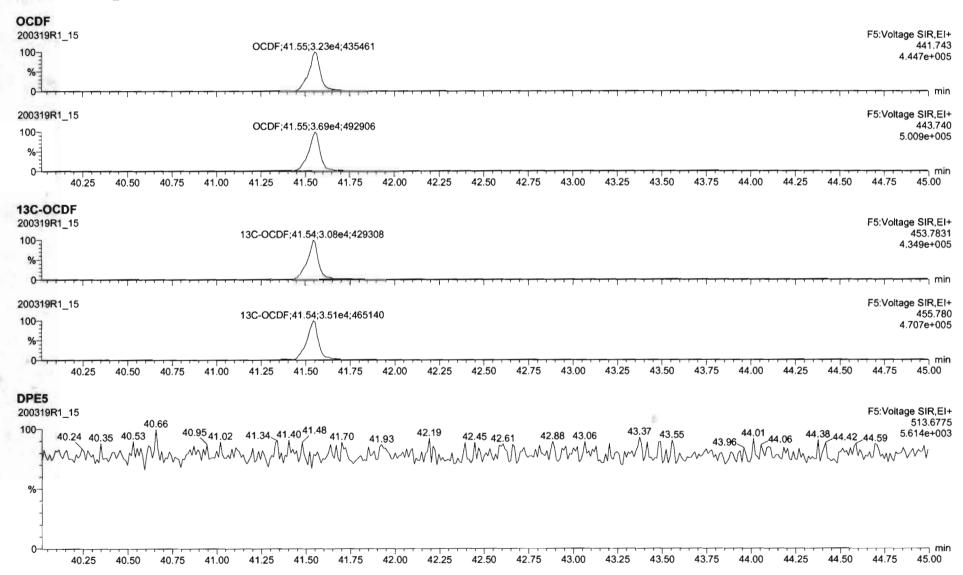
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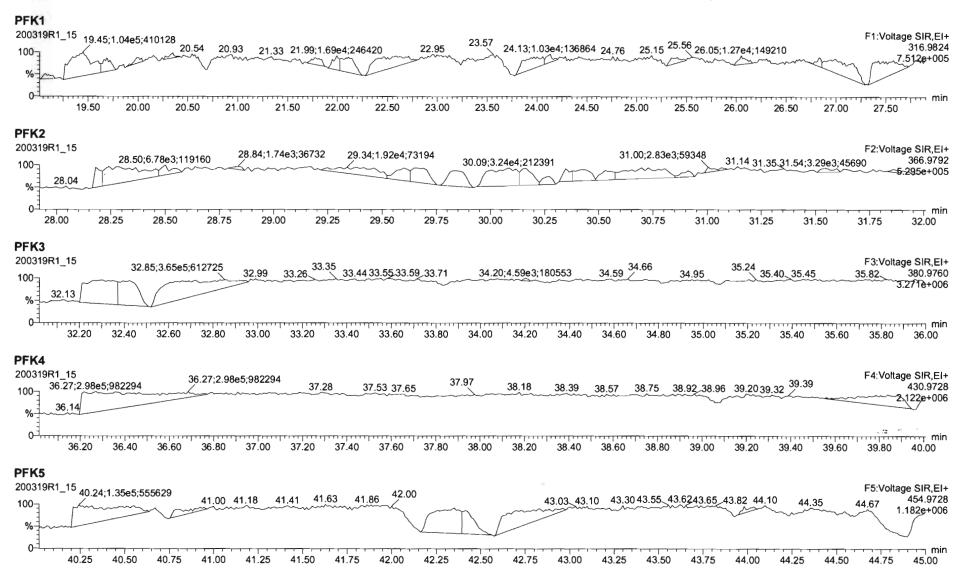
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Page 1 of 2

Dataset:

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C7 02/13/2020

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Name: 200202R1_15, Date: 02-Feb-2020, Time: 21:21:52, ID: 1903654-09 PDI-076SC-B-00-02-191013 18.3, Description: PDI-076SC-B-00-02-191013

c Linds	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7.8-TCDD	2.29e3	0.55	YES	0.988	10.012	25.721	25.70	1.001	1.001	0.33091		0.141	0.271
2	2 1.2.3,7.8-PeCDD	1.34e3	0.69	NO	0.972	10.012	30.657	30.64	1.001	1.000	0.23253		0.131	0.233
3	3 1,2,3,4,7.8-HxCDD	1.51e3	1.28	NO	1.07	10.012	33.997	34.00	1.000	1.000	0.29412		0.108	0.294
4	4 1,2,3,6.7,8-HxCDD	7.89e3	1.23	NO	0.921	10.012	34.083	34.10	1 000	1.001	1 5040		0.110	1.50
5	5 1,2,3,7.8,9-HxCDD	3.42e3	1.21	NO	0.918	10.012	34.404	34.39	1 001	1.001	0.65985		0.115	0.660
6	6 1,2,3,4,6,7,8-HpCDD	1.81e5	1.00	NO	0.923	10.012	37.918	37.92	1 000	1.000	41 746		0.346	41.7
7	7 OCDD	1.52e6	0.87	NO	0.975	10.012	40.910	40.92	1.000	1.000	389.75		0.233	390
8	8 2.3,7,8-TCDF	5.60e4	0.76	NO	0.802	10.012	24.832	24.82	1.001	1.001	7.3205	(6.60)	0.107	7.32
9	9 1,2,3,7,8-PeCDF	7.37e4	1.49	NO	0.907	10.012	29.376	29.37	1.001	1.001	8 6074		0.107	8.61
10	10 2.3.4,7,8-PeCDF	3.14e4	1 42	NO	0.952	10.012	30.361	30.35	1.001	1.001	3.7727		0.104	3.77
11	11 1.2,3,4,7,8-HxCDF	8.21e4	1.15	NO	0.862	10.012	33.114	33.13	1.000	1.001	14.976		0.0924	15.0
12	12 1,2.3,6,7,8-HxCDF	2.03e4	1.22	NO	0.841	10.012	33.252	33.25	1.000	1.000	3.6753		0.0949	3.68
13	13 2,3,4,6,7,8-HxCDF	6.65e3	1.16	NO	0.898	10.012	33.851	33.83	1.001	1 000	1.1929		0.0933	1.19
14	14 1.2,3,7,8,9-HxCDF	2.50e3	1 10	NO	0.858	10.012	34.722	34.75	1.000	1 001	0.48931		0.115	0.489
15	15 1,2,3,4,6.7,8-HpCDF	3.31e4	0.95	NO	0.851	10.012	36.505	36.49	1.001	1.001	8.4341		0.121	8 43
16	16 1.2.3,4,7.8,9-HpCDF	7.75e3	0.93	NO	0 980	10.012	38.503	38.50	1.000	1.000	2.2727		0.120	2.27
17	17 OCDF	6.55e4	0.84	NO	0.806	10.012	41.102	41.11	1.000	1.000	18.475		0.113	18.5
18	18 13C-2,3.7,8-TCDD	1.40e6	0.80	NO	1.20	10.012	25.675	25.69	1 026	1.026	202.38	101	0 285	
19	19 13C-1.2.3,7,8-PeCDD	1.18e6	0.64	NO	0.967	10.012	30.414	30.64	1.215	1.224	211.35	106	0.332	Ì
20	20 13C-1,2,3,4.7,8-HxCDD	9.55e5	1.27	NO	0.874	10.012	33.987	33 99	1.014	1.014	182.16	91.2	0.304	
21	21 13C-1,2,3,6,7.8-HxCDD	1.14e6	1.26	NO	1.05	10.012	34.088	34.08	1.017	1.017	181.37	90.8	0.254	
22	22 13C-1,2,3,7,8,9-HxCDD	1.13e6	1.24	NO	0.974	10.012	34.389	34.37	1.026	1.025	192.68	96.5	0.272	
23	23 13C-1,2,3,4,6.7,8-HpCDD	9.37e5	1.04	NO	0.747	10.012	37.942	37.91	1.132	1 131	208.99	105	0.530	ļ
24	24 13C-OCDD	1.59e6	0.92	NO	0.707	10.012	40.825	40.91	1.218	1.221	376.17	94.2	0.292	
25	25 13C-2,3,7.8-TCDF	1.91e6	0.78	NO	1.07	10.012	24.857	24.81	0.993	0.991	192.54	96.4	0.379	
26	26 13C-1,2,3,7,8-PeCDF	1.89e6	1.57	NO	1.00	10.012	29.187	29.35	1.166	1.173	202.67	101	0.340	
27	27 13C-2,3,4,7,8-PeCDF	1.75e6	1.56	NO	0.962	10.012	30.139	30.33	1.204	1.212	195.68	98.0	0.354	
28	28 13C-1,2,3,4,7,8-HxCDF	1.27e6	0.51	NO	1.05	10.012	33.116	33.11	0.988	0.988	201.85	101	0.411	l
29	29 13C-1,2,3,6,7,8-HxCDF	1.31e6	0.51	NO	1.19	10.012	33.216	33.24	0.991	0.992	184.19	92.2	0.362	
30	30 13C-2,3,4,6,7,8-HxCDF	1.24e6	0.52	NO	1.07	10.012	33.823	33.82	1.009	1.009	193.84	97.0	0.404	
31	31 13C-1,2,3,7,8,9-HxCDF	1.19e6	0.51	NO	0.922	10.012	34.725	34.72	1.036	1.036	214.96	108	0.468	

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Name: 200202R1_15, Date: 02-Feb-2020, Time: 21:21:52, ID: 1903654-09 PDI-076SC-B-00-02-191013 18.3, Description: PDI-076SC-B-00-02-191013

1 3 4	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	9.21 e 5	0.43	NO	0.767	10.012	36.468	36.47	1.088	1.088	200.23	100	0.462	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.95 e 5	0.43	NO	0.552	10.012	38.479	38.50	1.148	1.149	209.80	105	0.642	
34	34 13C-OCDF	1.76e6	0.87	NO	0.789	10.012	41.060	41.10	1.225	1.226	371.54	93 0	0.319	
35	35 37Cl-2,3,7,8-TCDD	5. 57e5			1.18	10.012	25.708	25.70	1.027	1.027	81.902	102	0.0984	
36	36 13C-1,2,3,4-TCDD	1.15e6	08.0	NO	1.00	10.012	25.080	25.03	1.000	1.000	199.76	100	0.341	
37	37 13C-1,2,3,4-TCDF	1.86e6	0.79	NO	1.00	10.012	23.420	23.37	1.000	1.000	199.76	100	0.404	
38	38 13C-1,2,3,4,6,9-HxCDF	1.20e6	0.51	NO	1.00	10.012	33.520	33.52	1.000	1.000	199.76	100	0.431	
39	39 Total Tetra-Dioxins				0.988	10.012	24.620		0.000		1.8908		0.141	2.16
40	40 Total Penta-Dioxins				0.972	10.012	29.960		0.000		2.4738		0.131	2.47
41	41 Total Hexa-Dioxins				0.921	10.012	33.635		0.000		14.299		0.117	14.3
42	42 Total Hepta-Dioxins				0.923	10.012	37.640		0.000		96.185		0.346	96.2
43	43 Total Tetra-Furans				0.802	10.012	23.610		0.000		28.335		0.107	29.9
44	44 1st Func. Penta-Furans				0.907	10.012	27.090		0.000		2.6604		0.0571	2.66
45	45 Total Penta-Furans				0.907	10.012	29.275		0.000		24.599		0.108	24.6
46	46 Total Hexa-Furans				0.898	10.012	33.555		0.000		29.520		0.0950	29.6
47	47 Total Hepta-Furans				0.851	10.012	37.835		0.000		23.101		0.129	23.1

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Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_15, Date: 02-Feb-2020, Time: 21:21:52, ID: 1903654-09 PDI-076SC-B-00-02-191013 18.3, Description: PDI-076SC-B-00-02-191013

Tetra-Dioxins

531	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.74	2.963e4	3.802e4	3.111e3	3.514e3	0.89	NO	6.625e3	0.95586	0.95586	0.141
2	Total Tetra-Dioxins	22.14	9.037e3	1.048e4	7.551e2	1.004e3	0.75	NO	1.759e3	0.25378	0.25378	0.141
3	Total Tetra-Dioxins	24.00	6.272e3	9.228e3	4.117e2	5 429e2	0.76	NO	9.547e2	0.13774	0.13774	0.141
4	Total Tetra-Dioxins	25.44	2.469e4	2.804e4	1.735e3	2.032e3	0.85	NO	3.767e3	0.54346	0.54346	0.141
5	2,3,7.8-TCDD	25.70	1.313e4	1.964e4	8.173e2	1.476e3	0.55	YES	2.294e3	0.00000	0.27106	0.141

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.44	2.325e4	3.592e4	1.679e3	2.941e3	0.57	NO	4.620e3	0.80421	0.80421	0.131
2	Total Penta-Dioxins	28.91	9.834e3	1.313e4	5.451e2	8.355e2	0.65	NO	1.381e3	0.24032	0.24032	0.131
3	Total Penta-Dioxins	29.42	1.454e4	2.347e4	1.002e3	1.524e3	0.66	NO	2.526e3	0.43975	0.43975	0.131
4	Total Penta-Dioxins	29.58	8.677e3	1.907e4	5.545e2	9.466e2	0.59	NO	1.501e3	0.26131	0.26131	0.131
5	Total Penta-Dioxins	29.66	9.595e3	9.869e3	3.281e2	5.254e2	0.62	NO	8.534e2	0.14856	0.14856	0.131
6	Total Penta-Dioxins	29.87	1.432e4	1.197e4	7.997e2	1.194e3	0.67	NO	1.994e3	0.34707	0 34707	0.131
7	1.2,3,7.8-PeCDD	30.64	1.197e4	1 629e4	5.438e2	7.920e2	0 69	NO	1 336e3	0.23253	0.23253	0.131

Hexa-Dioxins

na A	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.51	2.999e5	2.394e5	1.430e4	1.229e4	1 16	NO	2.659e4	5.3755	5.3755	0.117
2	Total Hexa-Dioxins	33.06	3.837e4	3.177e4	1.900e3	1.511e3	1.26	NO	3.411e3	0.68951	0.68951	0.117
3	Total Hexa-Dioxins	33.33	2.253e5	1.852e5	1.459e4	1.163e4	1 25	NO	2.622e4	5.3014	5.3014	0.117
4	Total Hexa-Dioxins	33.43	1.308e4	1.449e4	7.468e2	6.263e2	1.19	NO	1.373e3	0.27758	0.27758	0.117
5	1,2,3,4.7,8-HxCDD	34.00	1.643e4	1.335e4	8.451e2	6.601e2	1.28	NO	1.505e3	0.29412	0.29412	0.108
6	1,2,3,6,7.8-HxCDD	34.10	8.192e4	6.367e4	4.357e3	3.532e3	1.23	NO	7.889e3	1.5040	1.5040	0.110
7	Total Hexa-Dioxins	34.28	9.599e3	1.122e4	5.103e2	4.658e2	1.10	NO	9.761e2	0.19732	0.19732	0.117
8	1,2,3,7,8,9-HxCDD	34.39	3.375e4	2.998e4	1.867e3	1.548e3	1.21	NO	3.415e3	0.65985	0.65985	0.115

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Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.87	1.770e6	1.793e6	1.186e5	1 171e5	1.01	NO	2.356e5	54.439	54.439	0.346
2	1,2,3,4,6,7,8-HpCDD	37 92	1.340e6	1.314e6	9.026e4	9.042e4	1.00	NO	1.807e5	41.746	41.746	0.346

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DŁ
1	Total Tetra-Furans	19.63	8.525e3	9.587e3	6.545e2	7.440e2	0.88	NO	1.398e3	0.18284	0.18284	0.107
2	Total Tetra-Furans	20.15	1.075e4	1.003e4	8.393e2	9.481e2	0.89	NO	1.787e3	0.23370	0.23370	0.107
3	Total Tetra-Furans	20.77	1.973e5	2.488e5	1.778e4	2.258e4	0.79	NO	4.037e4	5.2779	5.2779	0.107
4	Total Tetra-Furans	21.19	6.619e3	9.601e3	4.537e2	5.917e2	0.77	NO	1.045e3	0.13669	0.13669	0.107
5	Total Tetra-Furans	21.30	2.367e4	2.748e4	2.366e3	2.838e3	0.83	NO	5.204e3	0.68036	0.68036	0.107
6	Total Tetra-Furans	21.71	7.603e4	9.682e4	7.394e3	9.705e3	0.76	NO	1.710e4	2.2356	2.2356	0.107
7	Total Tetra-Furans	22.20	3.061e4	4.111e4	2.669e3	3.812e3	0.70	NO	6.481e3	0.84743	0.84743	0.107
8	Total Tetra-Furans	22.35	6.310e3	7.820e3	3.732e2	5.547e2	0.67	NO	9.280e2	0.12133	0.12133	0.107
9	Total Tetra-Furans	22.55	1.951e4	2.089e4	1.472e3	1.932e3	0.76	NO	3.404e3	0.44509	0.44509	0.107
10	Total Tetra-Furans	23.31	3.221e4	3.910e4	2.085e3	2.362e3	88.0	NO	0.000e0	0.00000	0.58143	0.107
11	Total Tetra-Furans	23.37	6.069e4	8.167e4	5.910e3	8.132e3	0.73	NO	1.404e4	1.8359	1.8359	0.107
12	Total Tetra-Furans	23.89	2.656e5	3.555e5	2.176e4	2.933e4	0.74	NO	5.109e4	6.6797	6 6797	0.107
13	Total Tetra-Furans	24 19	1.578e4	1.855e4	1.044e3	1.247e3	0.84	NO	2.291e3	0.29957	0.29957	0.107
14	Total Tetra-Furans	24.37	6.899e3	5.709e3	5.011e2	6.103e2	0.82	NO	1.111e3	0.14531	0.14531	0.107
15	Total Tetra-Furans	24.58	6.845e3	9.784e3	4.361e2	6.595e2	0.66	NO	1.096e3	0.14325	0.14325	0.107
16	Total Tetra-Furans	24.72	5.950e4	9.036e4	3.872e3	5. 464e 3	0.71	NO	9.335e3	1.2205	1.2205	0.107
17	2,3,7,8-TCDF	24.82	3.361e5	4.403e5	2.411e4	3.188e4	0.76	NO	5.599e4	7.3205	7.3205	0.107
18	Total Tetra-Furans	25.20	1.899e4	2.347e4	1.299e3	1.808e3	0.72	NO	3.107e3	0.40619	0.40619	0.107
19	Total Tetra-Furans	25.45	5.944e3	8.812e3	4.308e2	5.136e2	0.84	NO	9.444e2	0.12348	0.12348	0.107
20	Total Tetra-Furans	26.81	6.462e4	5.776e4	4.054e3	4.136e3	0.98	YES	0.000e0	0.00000	0.95716	0.107

Penta-Furans function 1

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	26.81	2.094e5	1.340e5	1.328 e4	8.671e3	1.53	NO	2.195e4	2.6604	2.6604	0.0571

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Penta-Furans

21	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.24	2.399e4	1.567e4	1.612e3	1.003e3	1.61	NO	2.614e3	0.31680	0.31680	0.108
2	Total Penta-Furans	28.39	4.253e5	2.563e5	2.774e4	1.733e4	1.60	NO	4.507e4	5.4611	5.4611	0.108
3	Total Penta-Furans	28.47	1.771e4	1.625e4	7.655e2	4.568e2	1.68	NO	1.222e3	0.14812	0.14812	0.108
4	Total Penta-Furans	28.96	6.967e4	4.559e4	3.849e3	2.469e3	1.56	NO	6.318e3	0.76564	0.76564	0.108
5	Total Penta-Furans	29.05	1.794e4	1.040e4	7 536e2	4.292e2	1.76	NO	1.183e3	0.14333	0.14333	0.108
6	Total Penta-Furans	29.19	8.203e4	6.752e4	4.605e3	3.349e3	1.37	NO	7.954e3	0.96386	0.96386	0.108
7	1.2,3.7,8-PeCDF	29.37	8.109e5	5.643e5	4.417e4	2.955e4	1.49	NO	7.372e4	8.6074	8.6074	0.107
8	Total Penta-Furans	29.63	2.716e5	1.685e5	1.552e4	9.805e3	1.58	NO	2.532e4	3.0683	3.0683	0.108
9	Total Penta-Furans	30.24	1.097e4	8.049e3	5.018e2	3.458e2	1.45	NO	8.475e2	0.10270	0.10270	0.108
10	2,3,4,7.8-PeCDF	30.35	3.616e5	2.422e5	1.846e4	1.295e4	1.42	NO	3.141e4	3.7727	3.7727	0.104
11	Total Penta-Furans	30.38	1.973e5	1.376e5	5.007e3	3.147e3	1.59	NO	8.154e3	0.98812	0.98812	0.108
12	Total Penta-Furans	31.28	2.463e4	1.440e4	1.329e3	8.218e2	1.62	NO	2.151e3	0.26062	0.26062	0.108

Hexa-Furans

SALE.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.96	6.105e4	5.146e4	2.751e3	2.465e3	1.12	NO	5.217e3	0.92570	0.92570	0.0950
2	Total Hexa-Furans	32.13	2.275e5	1.635e5	1.017e4	8.203e3	1.24	NO	1.837e4	3.2603	3.2603	0.0950
3	Total Hexa-Furans	32.49	5.850e3	6.689e3	2.497e2	2.604e2	0.96	YES	0.000e0	0.00000	0.080056	0.0950
4	Total Hexa-Furans	32.67	2.237e5	1.974e5	1.062e4	8.838e3	1.20	NO	1.945e4	3.4522	3.4522	0.0950
5	Total Hexa-Furans	33.03	1.695e4	1.114e4	7.038e2	5.549e2	1.27	NO	1.259e3	0.22335	0.22335	0.0950
6	1,2,3,4,7.8-HxCDF	33.13	8.785e5	7.680e5	4.390e4	3.821e4	1.15	NO	8.211e4	14.976	14.976	0.0924
7	1.2,3,6,7,8-HxCDF	33.25	2.120e5	1.657e5	1.118e4	9.173e3	1.22	NO	2.035e4	3.6753	3.6753	0.0949
8	Total Hexa-Furans	33.53	6.612e3	5.429e3	3.267e2	2.331e2	1.40	NO	5.597e2	0 099320	0.099320	0.0950
9	2,3,4.6,7,8-HxCDF	33.83	6.451e4	5.804e4	3.576e3	3.073e3	1.16	NO	6.649e3	1.1929	1.1929	0.0933
10	1,2,3,7,8,9-HxCDF	34.75	5.612e4	4.284e4	1.308e3	1. 190e 3	1.10	NO	2.499e3	0.48931	0.48931	0.115
11	Total Hexa-Furans	34.78	7.767e4	7.620e4	3.810e3	3.097e3	1.23	NO	6.907e3	1.2256	1.2256	0.0950

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Hepta-Furans

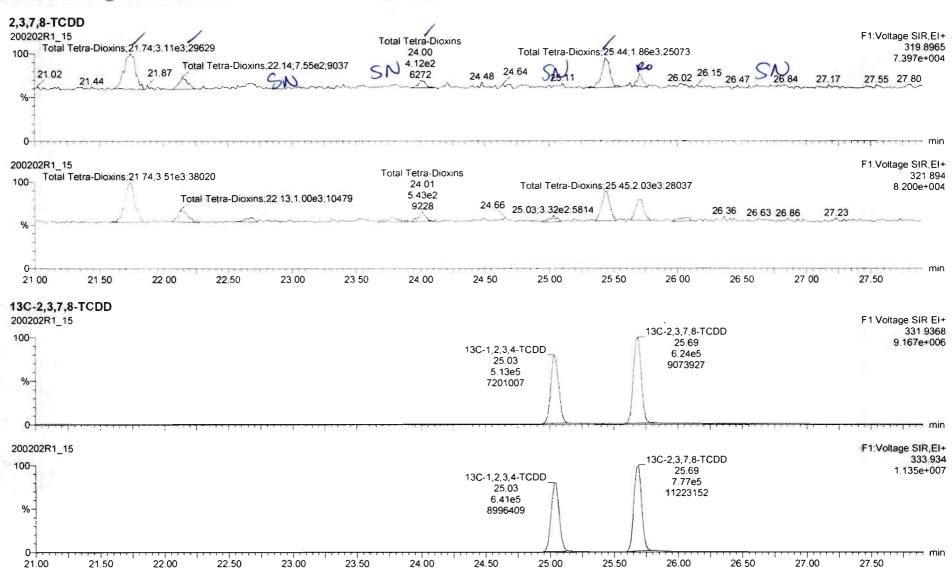
	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	п/у	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.49	2.451e5	2.625e5	1.614e4	1.696e4	0.95	NO	3.310e4	8.4341	8.4341	0.121
2	Total Hepta-Furans	36.88	1.004e4	6.961e3	4.510e2	4.650e2	0.97	NO	9.159e2	0.26602	0.26602	0.129
3	Total Hepta-Furans	37.09	2.986e5	3.061e5	2.041e4	2.135e4	0.96	NO	4.176e4	12.128	12.128	0.129
4	1.2,3,4,7,8,9-HpCDF	38 50	7.163e4	6.732e4	3.738e3	4.010e3	0.93	NO	7.748e3	2.2727	2.2727	0.120

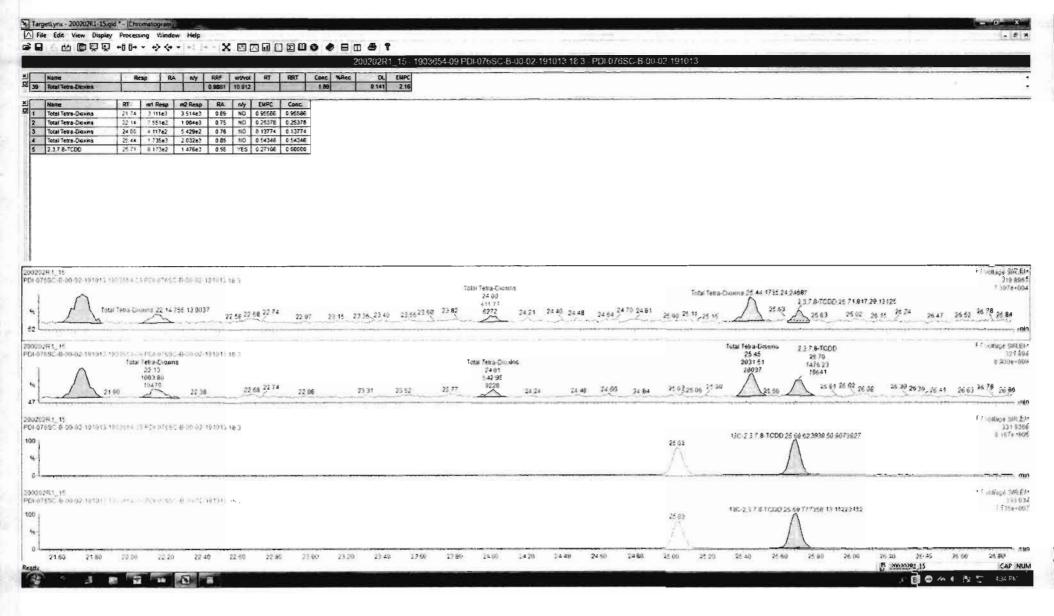
Work Order 1903654 Page 498 of 1184

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Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

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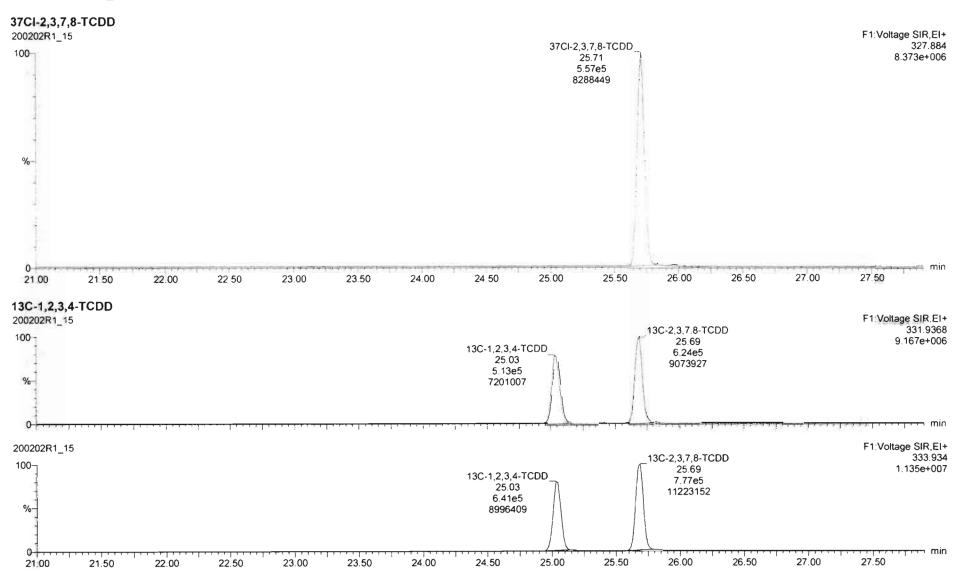


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Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time

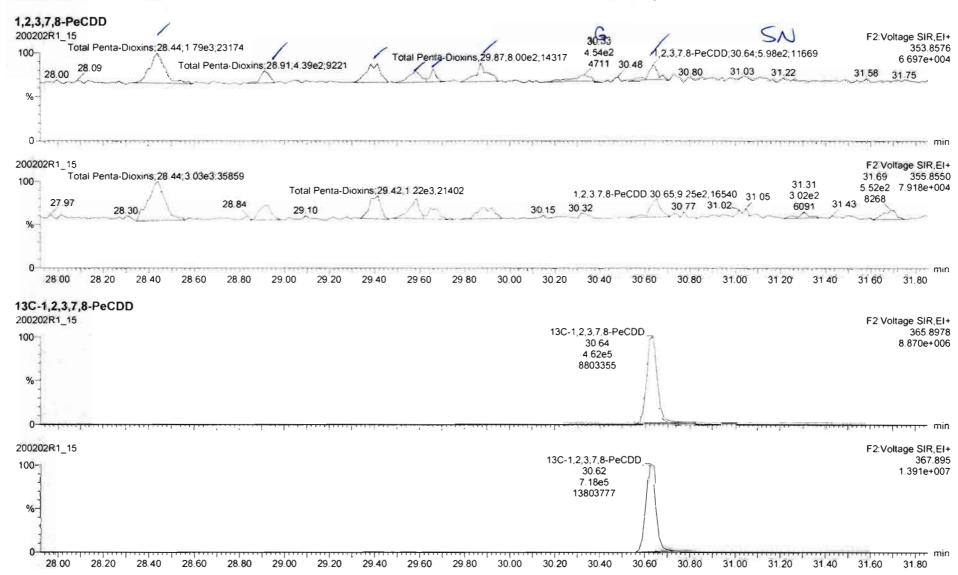
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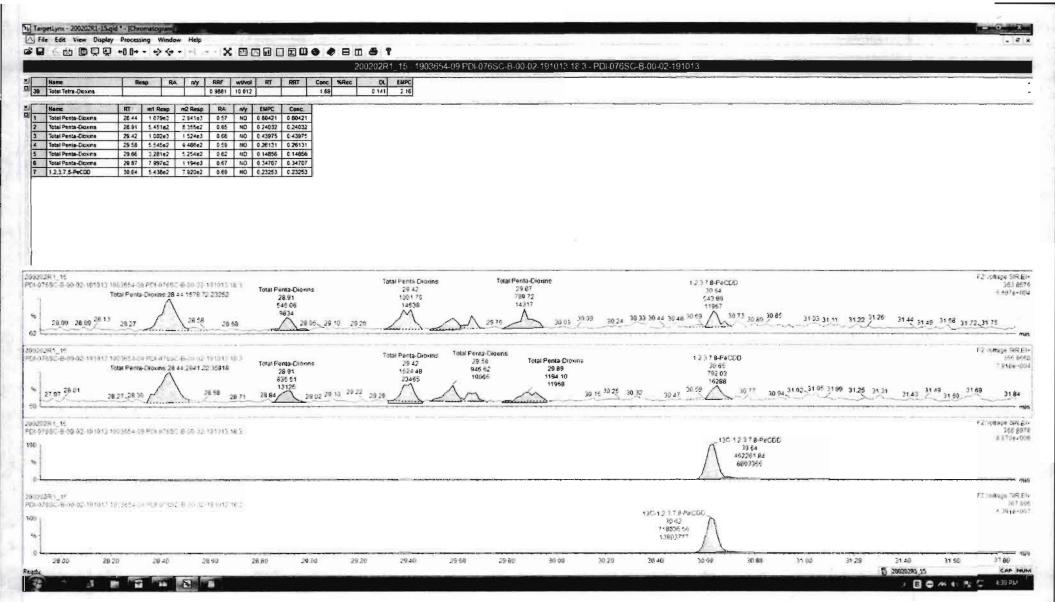


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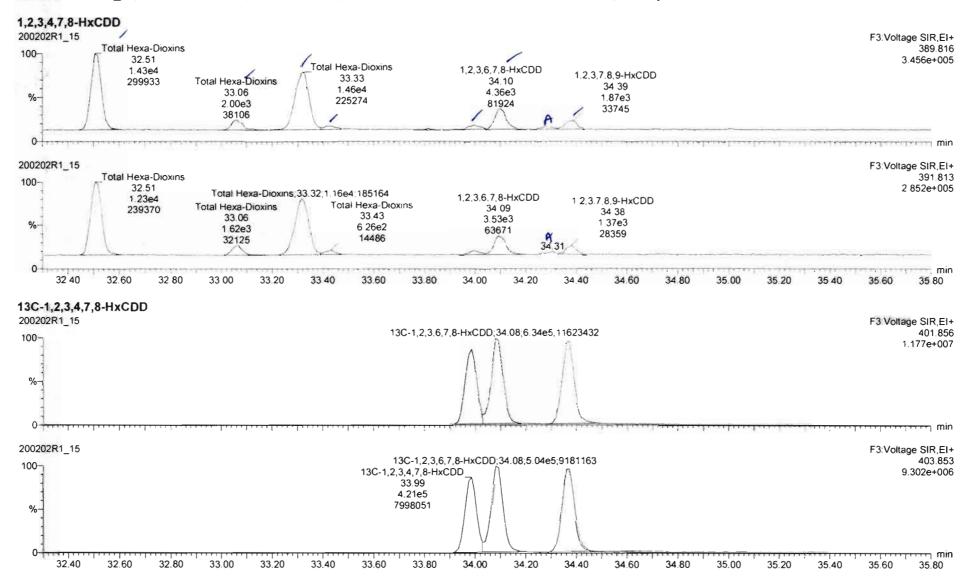


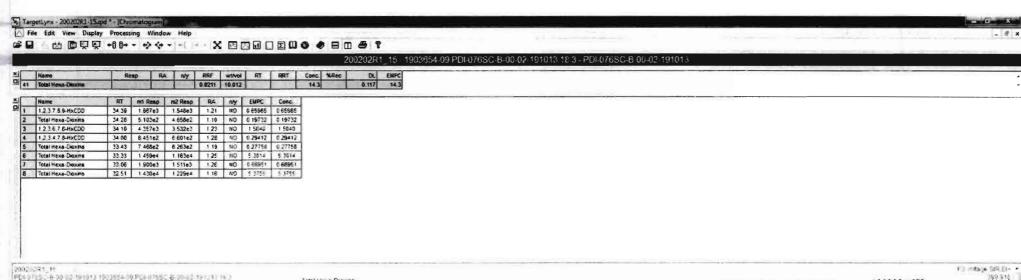


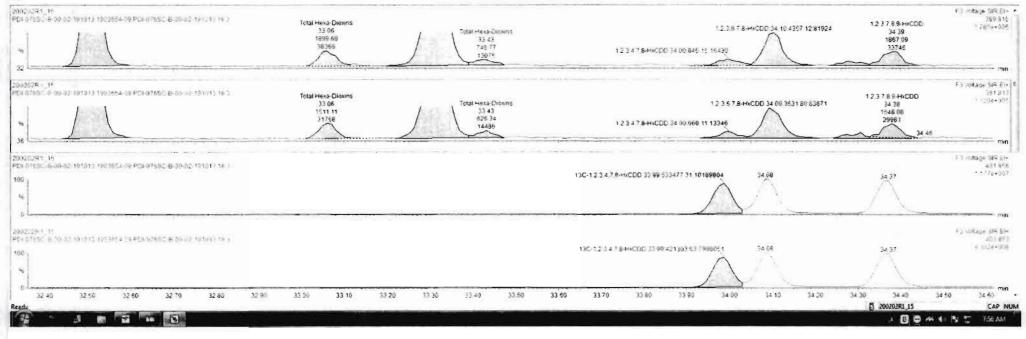
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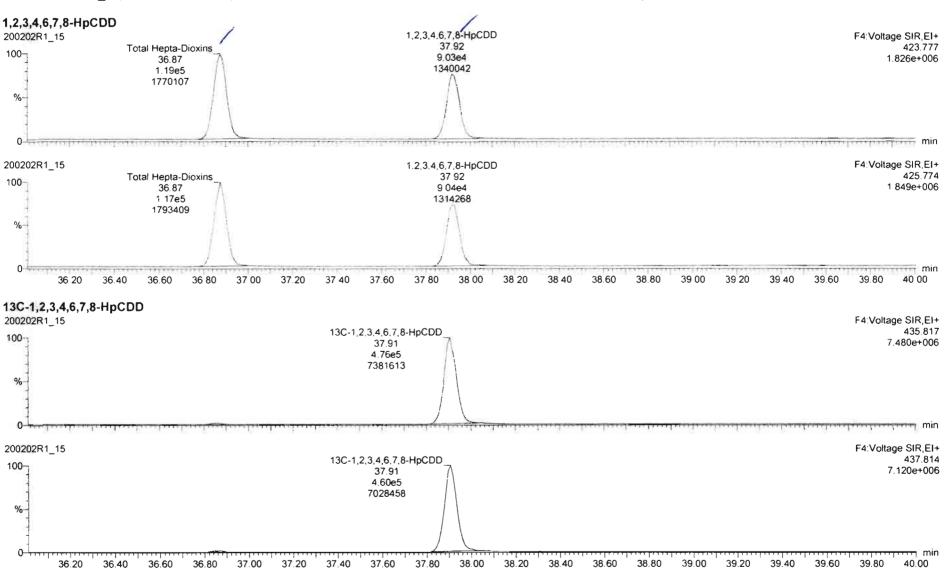




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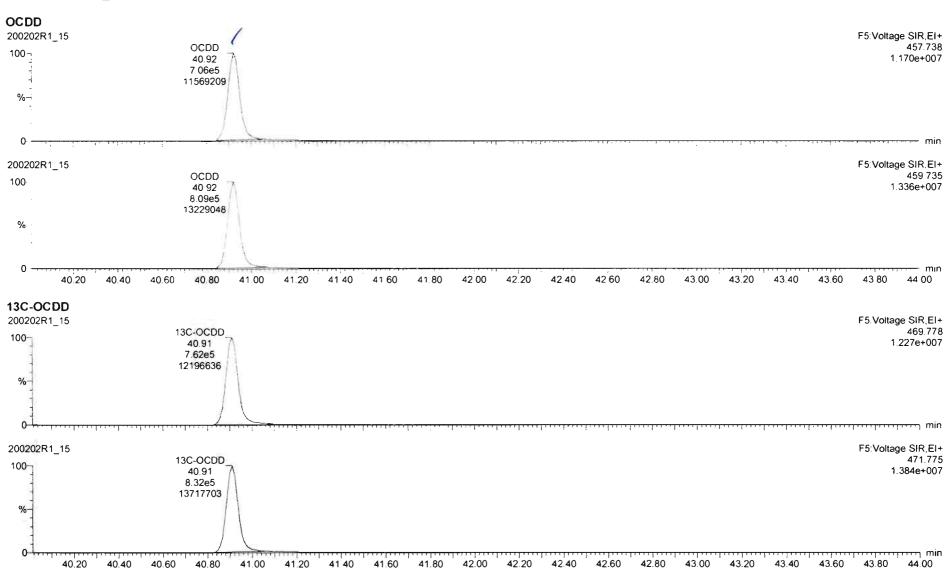
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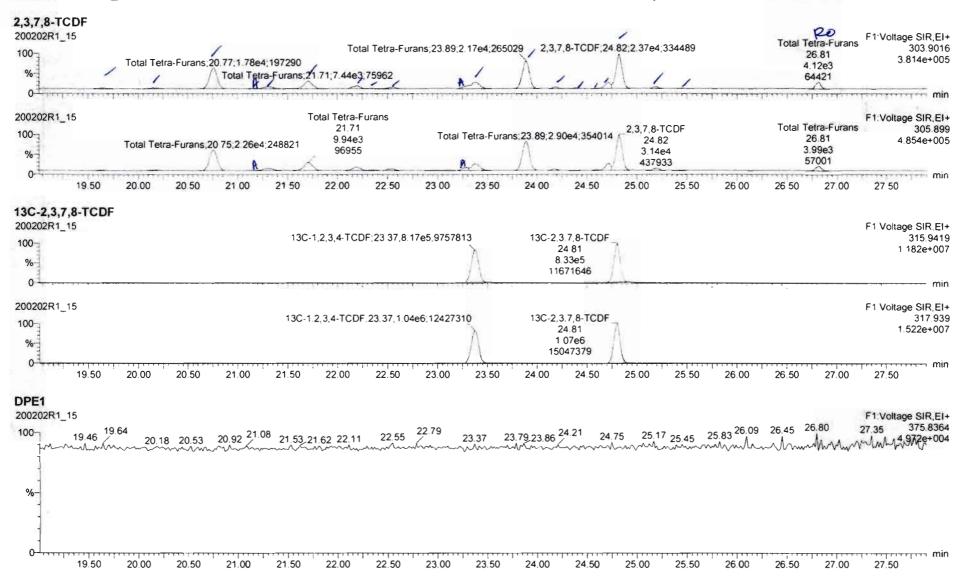
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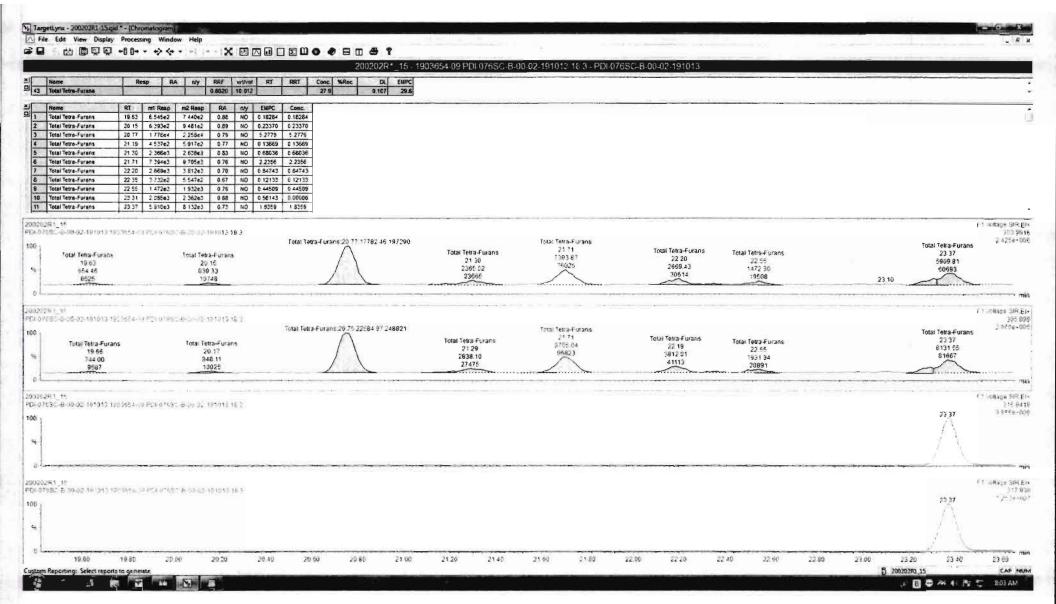
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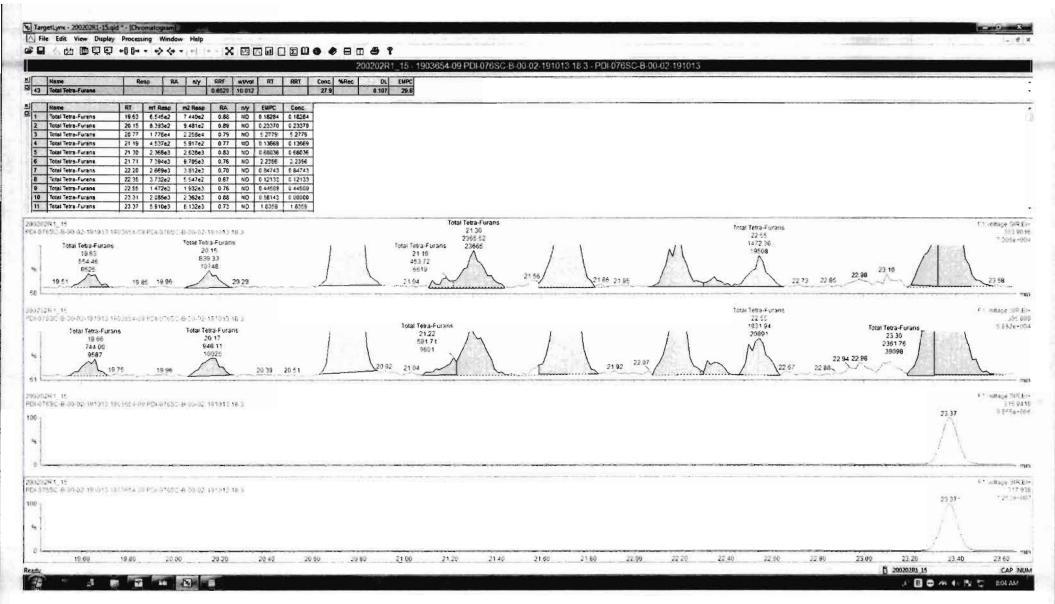
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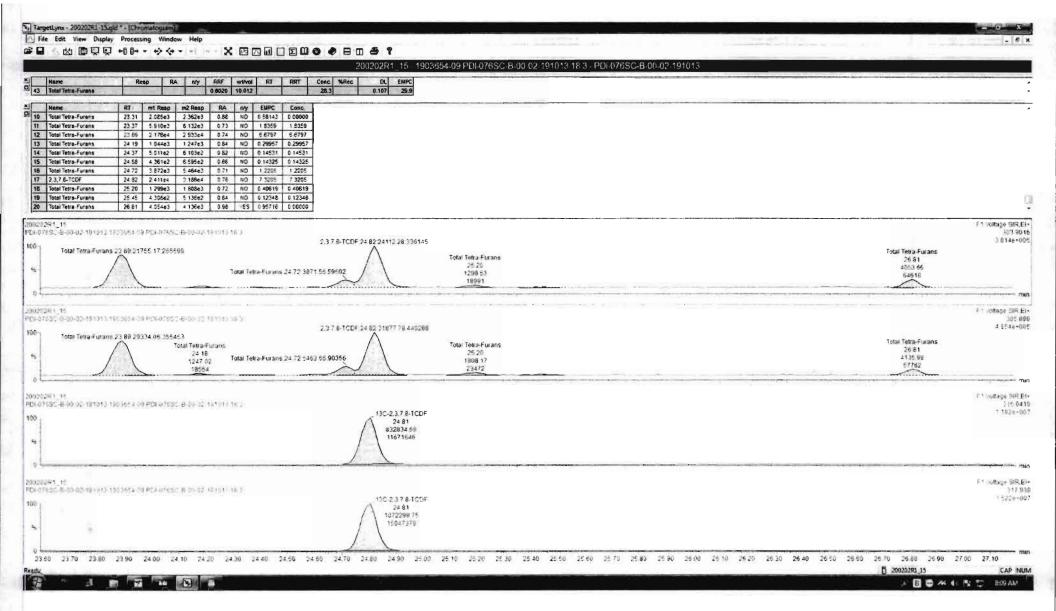


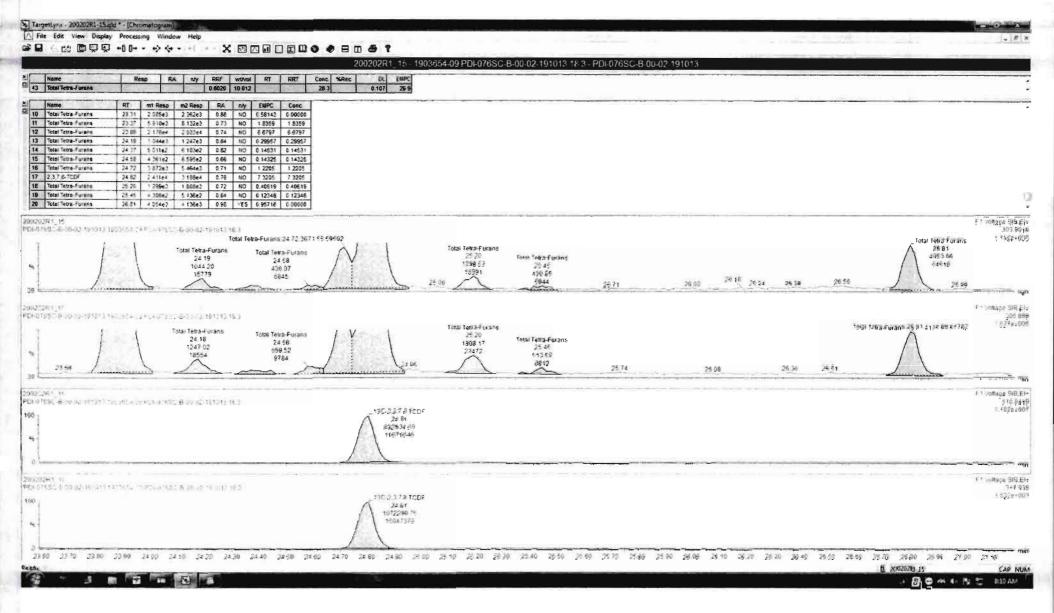


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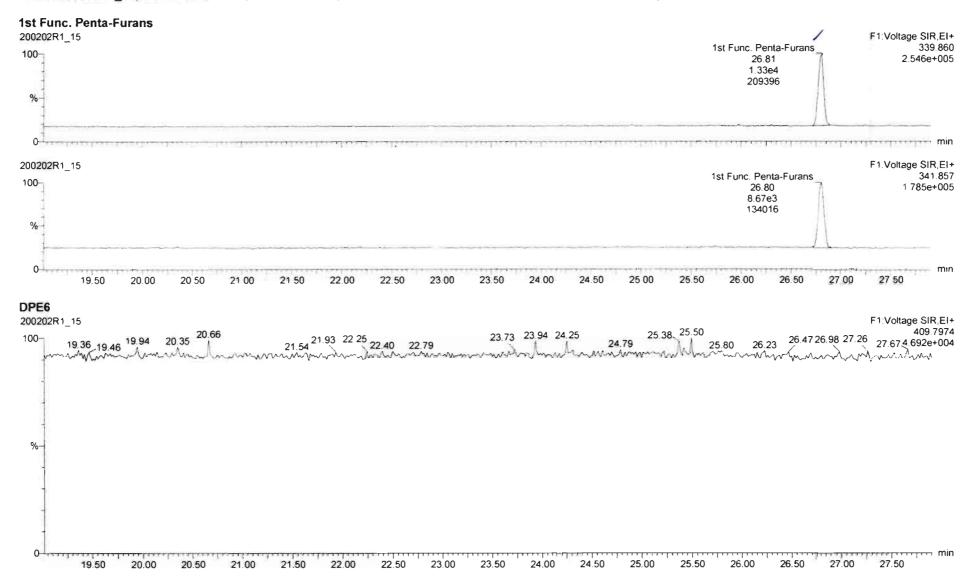
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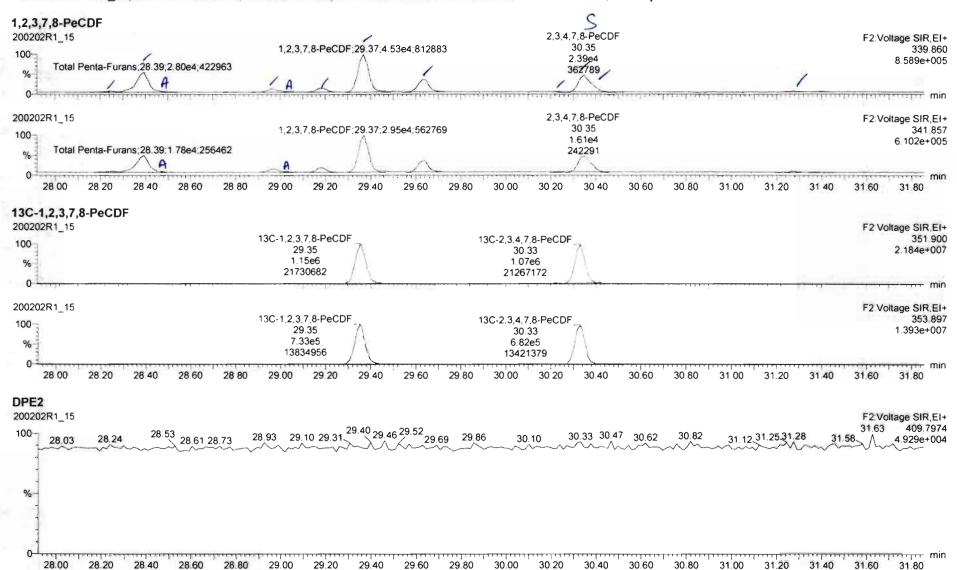
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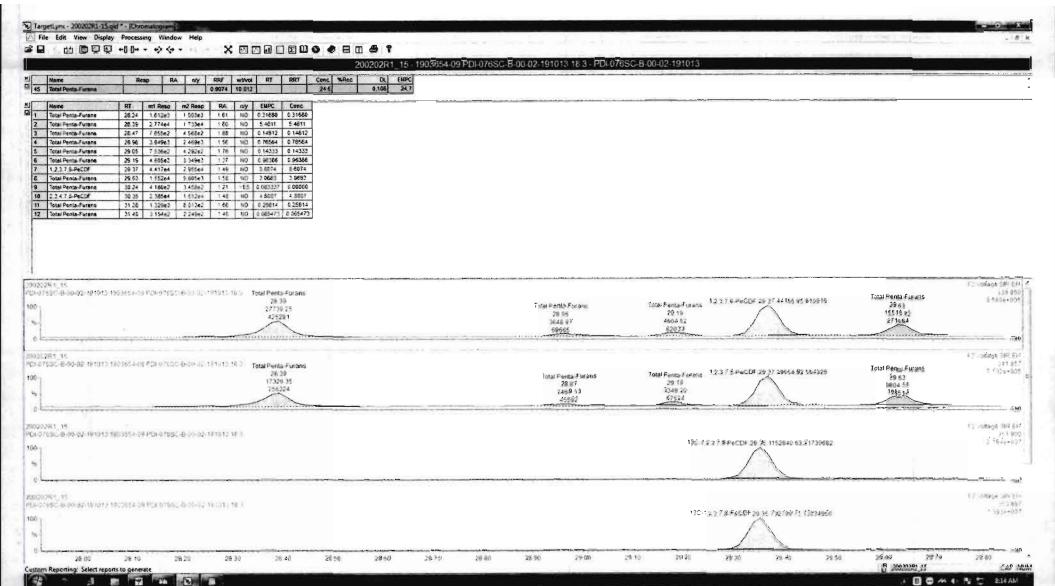
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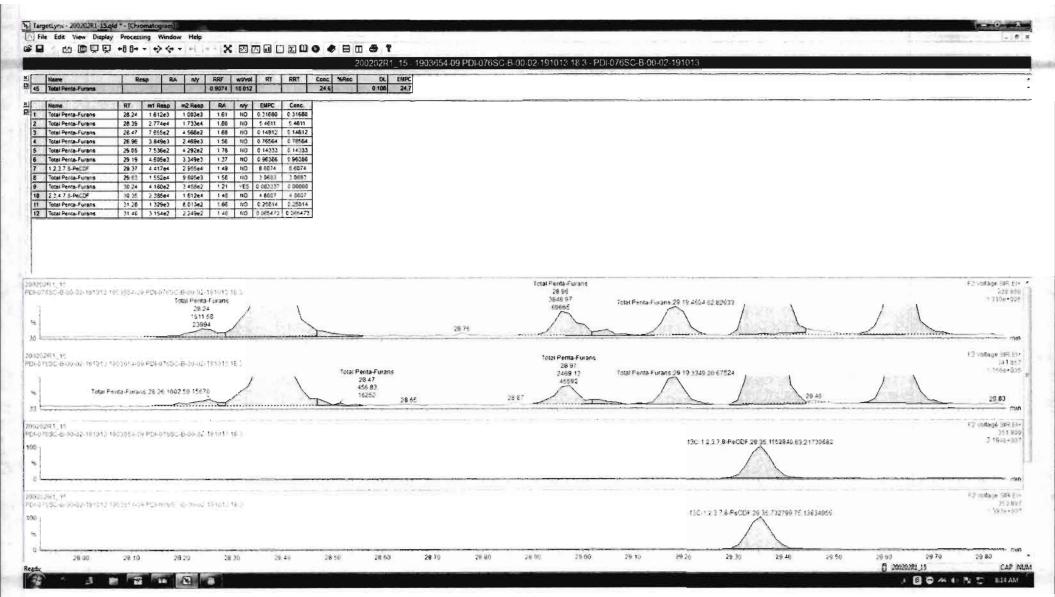
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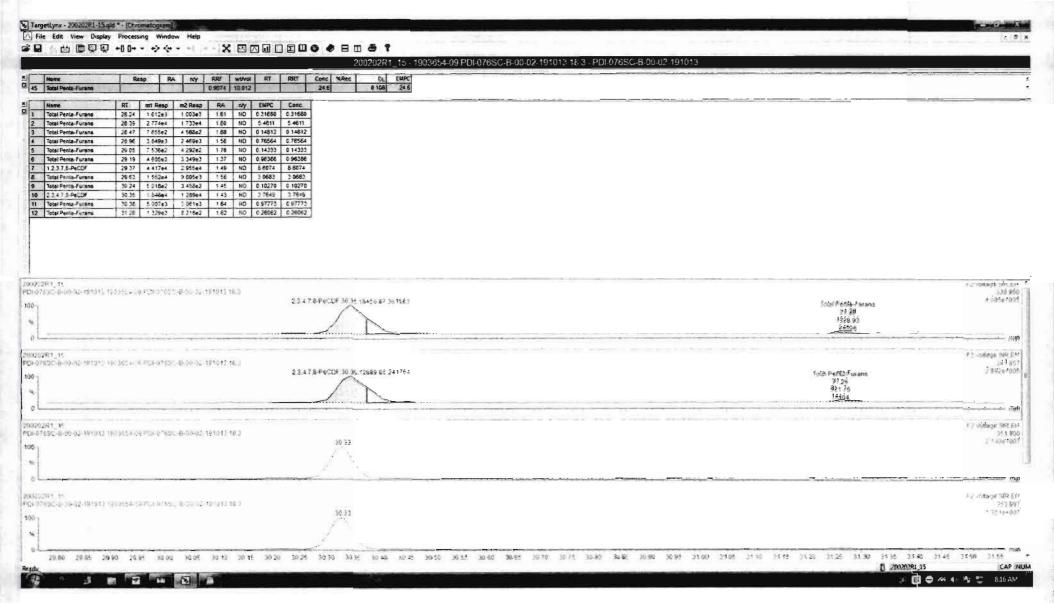




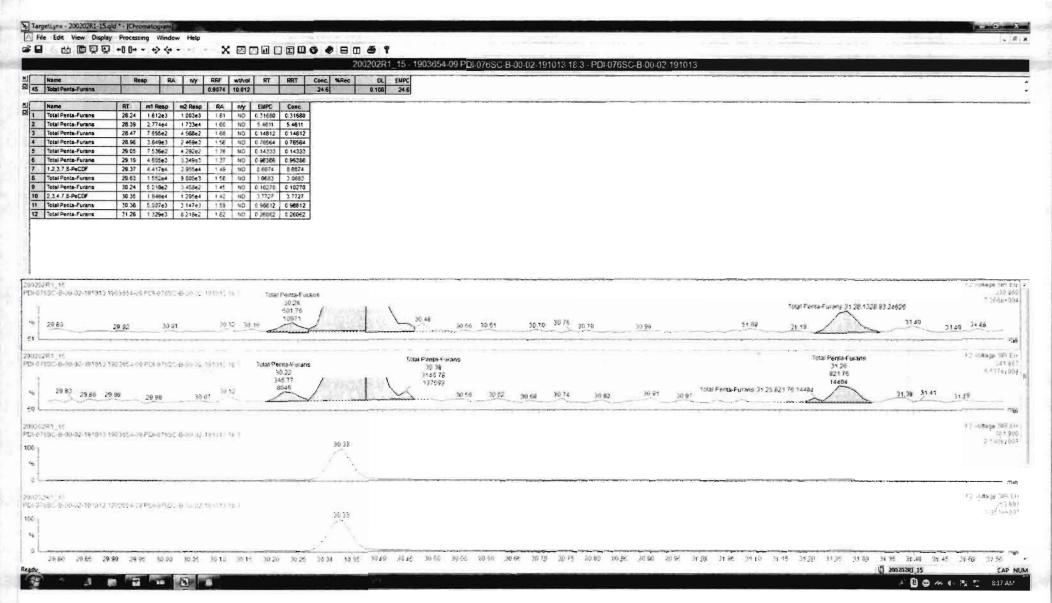
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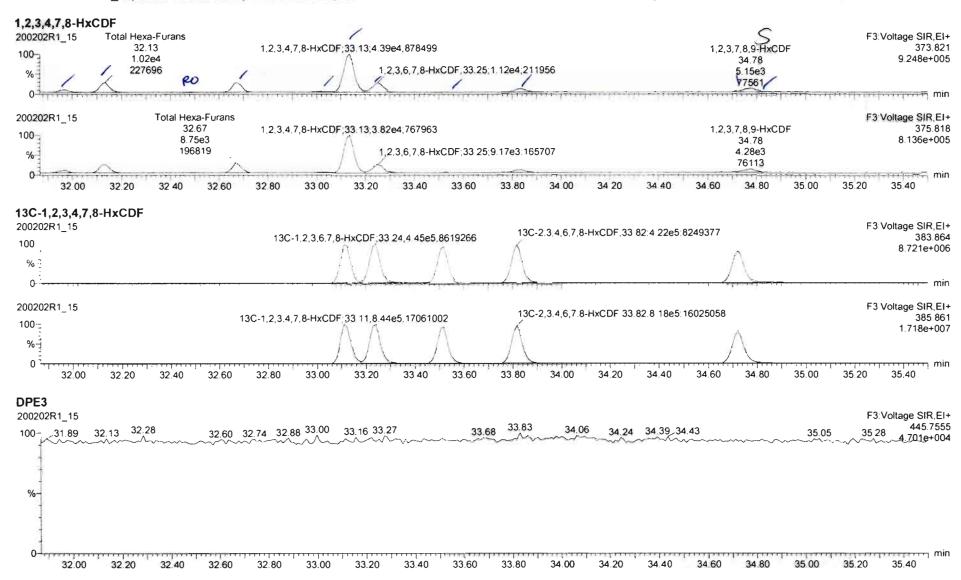


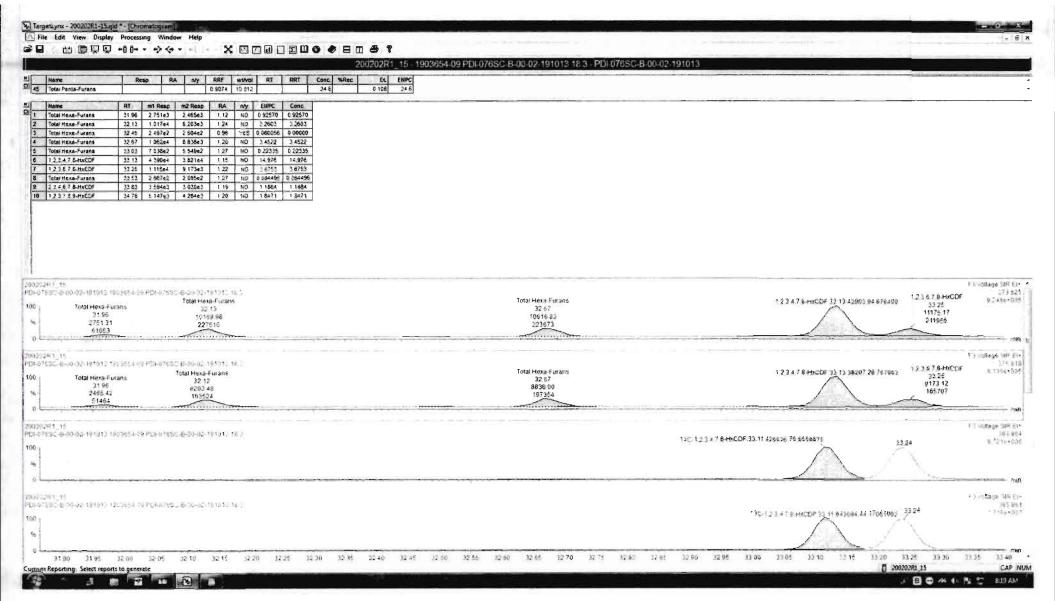
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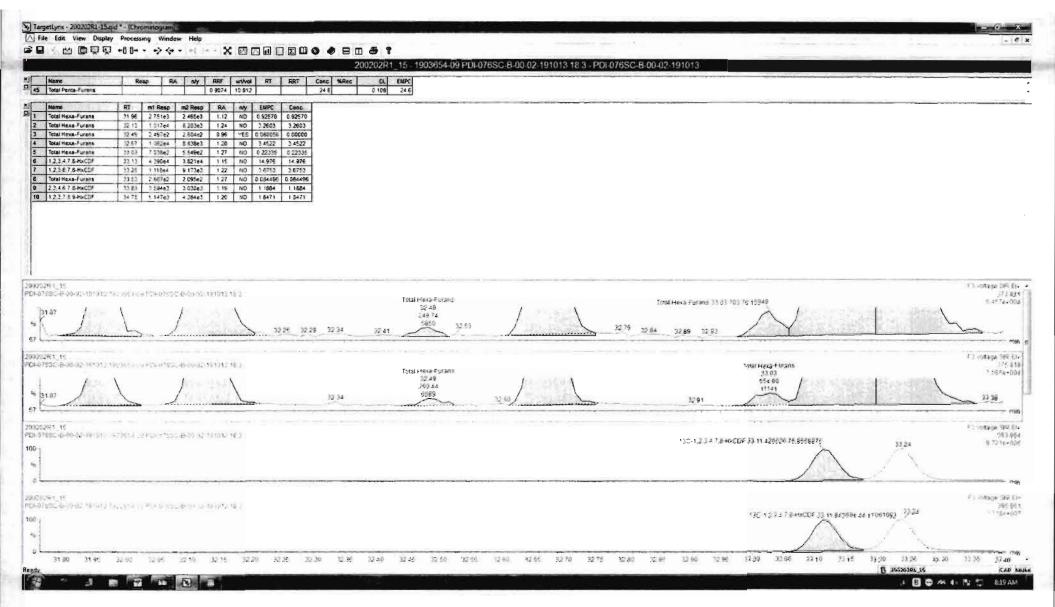
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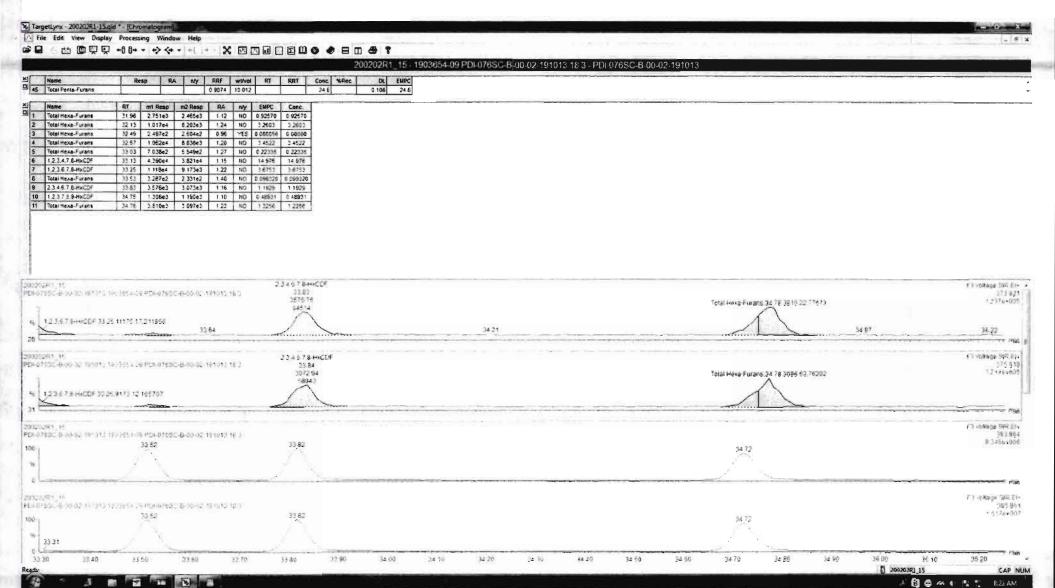


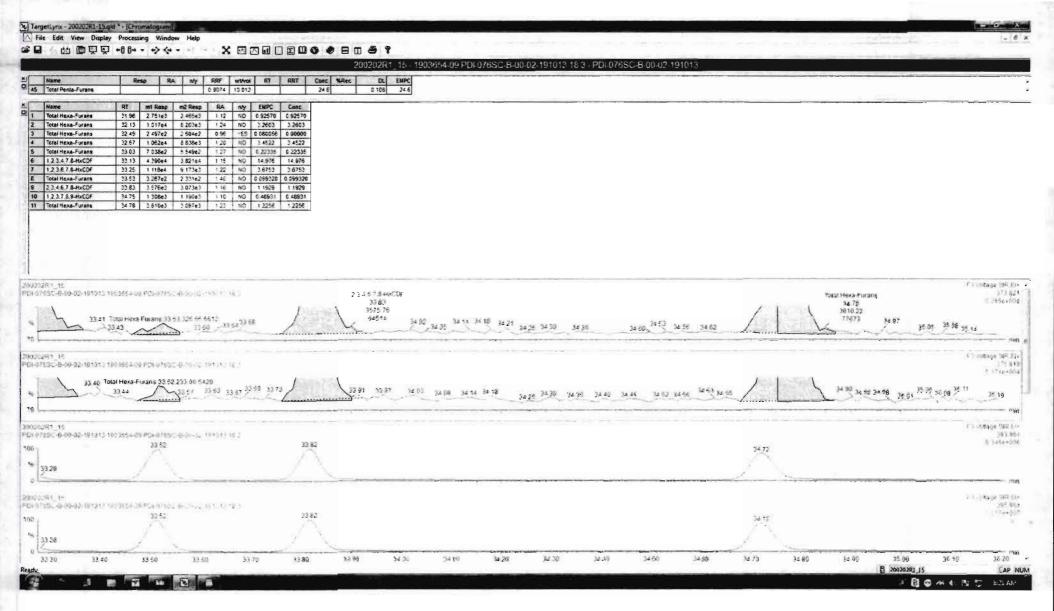


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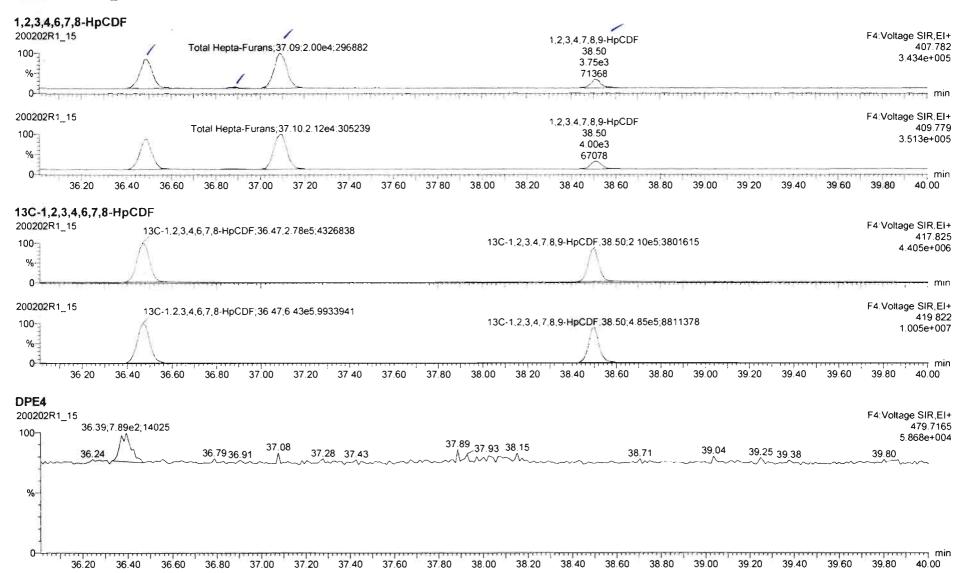
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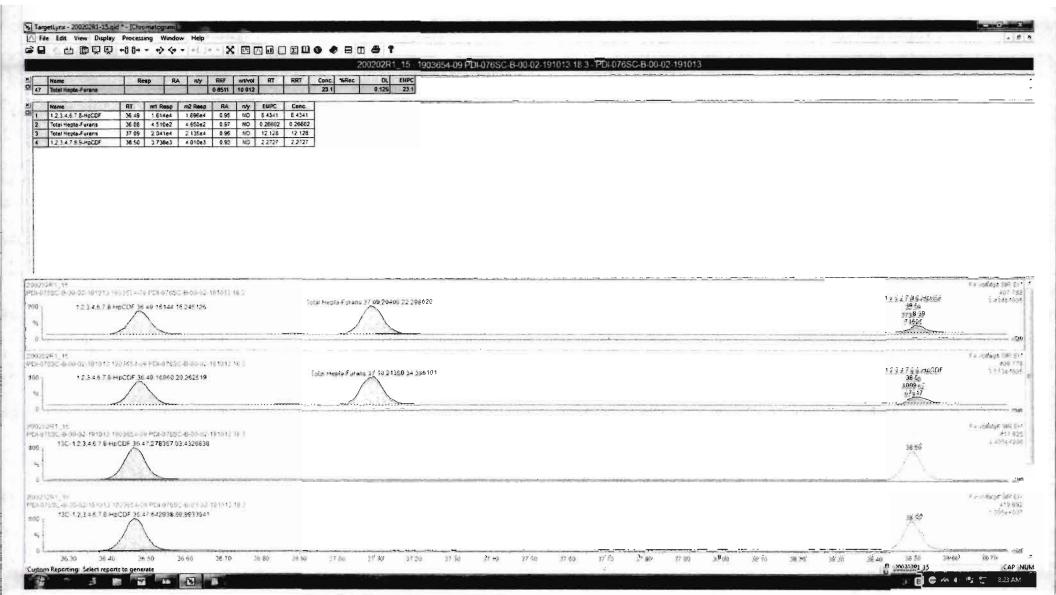


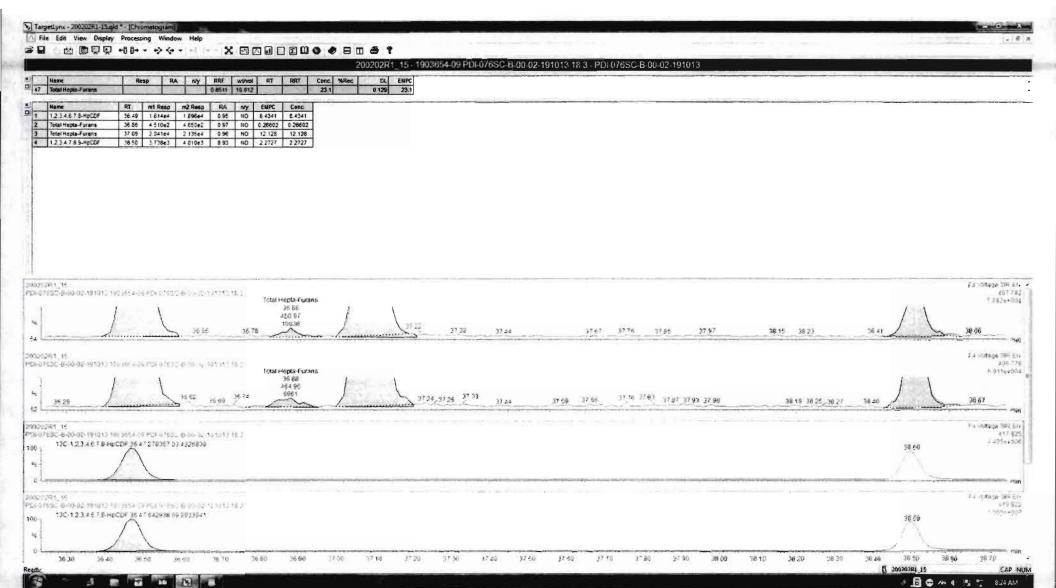


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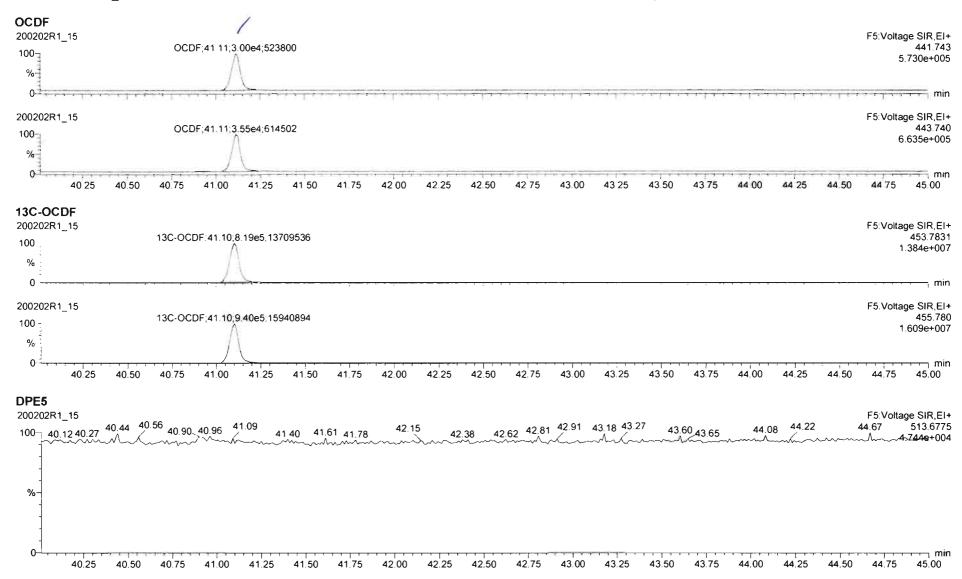


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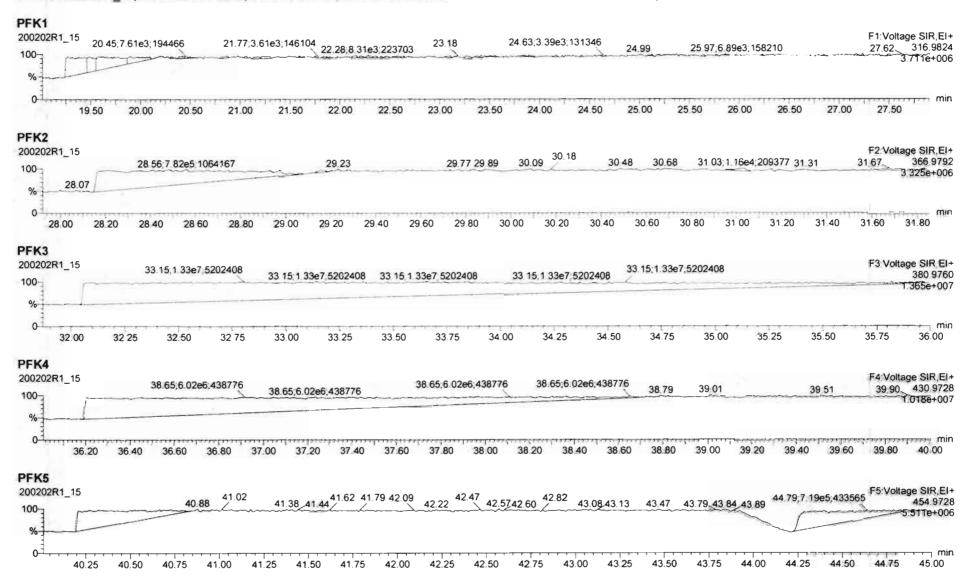
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Last Altered: Printed: Monday, February 03, 2020 09:34:05 Pacific Standard Time Monday, February 03, 2020 09:34:09 Pacific Standard Time



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Dataset:

U:\VG12.PRO\Results\200202R2\200202R2-4.qld

Last Altered: Printed:

Wednesday, February 12, 2020 11:27:36 Pacific Standard Time Wednesday, February 12, 2020 11:28:31 Pacific Standard Time

GRB 02/12/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R2_4, Date: 03-Feb-2020, Time: 00:38:03, ID: 1903654-10 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	4.40e3	0.69	NO	0.988	10.096	25.721	25.72	1.001	1.001	0.54155		0.0729	0.542
2	2 1.2,3,7,8-PeCDD	5.16e3	0.65	NO	0.972	10.096	30.642	30.65	1.001	1.001	0.78838		0.0764	0.788
3	3 1.2,3,4,7,8-HxCDD	4.00e3	1.37	NO	1.07	10.096	33.997	34.00	1.000	1.000	0.69708		0.122	0.697
4	4 1,2.3,6,7,8-HxCDD	2.58e4	1.18	NO	0.921	10.096	34.083	34.10	1.000	1.001	4.4423		0.131	4.44
5	5 1,2,3.7.8,9-HxCDD	1.10e4	1.29	NO	0.918	10.096	34.394	34.38	1.001	1.001	1.9918		0.142	1.99
6	6 1.2.3,4,6,7,8-HpCDD	3.97 e 5	1.03	NO	0.923	10.096	37.918	37.92	1.000	1.000	88.057		0.547	88.1
7	7 OCDD	3.81e6	0.88	NO	0.975	10.096	40.921	40.93	1.000	1.000	968.55		0.315	969
8	8 2,3,7,8-TCDF	3.25e5	0.75	NO	0.802	10.096	24.832	24.82	1.001	1.001	36.641	OK	0.106	36.6
9	9 1,2,3,7.8-PeCDF	5.05e5	1.52	NO	0.907	10.096	29 376	29.37	1.001	1.001	51.087		0.147	51.1
10	10 2.3,4,7,8-PeCDF	2.26e5	1.56	NO	0.952	10.096	30.361	30.35	1.001	1.001	22.846		0.138	22.8
11	11 1,2,3,4,7,8-HxCDF	5.56e5	1.17	NO	0.862	10.096	33.114	33.13	1.000	1.001	91.045		0.145	91.0
12	12 1,2,3,6,7,8-HxCDF	1.65e5	1.19	NO	0.841	10.096	33.252	33.25	1.000	1.000	25.312		0.144	25.3
13	13 2.3,4,6,7,8-HxCDF	3.77e4	1.16	NO	0.898	10.096	33.851	33.83	1.001	1.000	6.1379		0.154	6.14
14	14 1,2,3,7,8,9-HxCDF	1.08e4	1.06	NO	0.858	10.096	34.722	34.74	1.000	1.001	2.0635		0.201	2.06
15	15 1,2,3,4,6,7,8-HpCDF	2.26e5	0.96	NO	0.851	10.096	36.505	36.49	1.001	1.001	53.577		0.235	53.6
16	16 1.2.3,4,7.8,9-HpCDF	6 68e4	0.99	NO	0.980	10.096	38.503	38.51	1.000	1.000	18.728		0.247	18.7
17	17 OCDF	4.03e5	0.84	NO	0.806	10.096	41.102	41.12	1.000	1.001	108.79		0.168	109
18	18 13C-2.3,7.8-TCDD	1.63e6	0.79	NO	1.20	10.096	25 691	25 69	1 026	1.026	186.08	93.9	0.213	
19	19 13C-1,2,3,7.8-PeCDD	1 33e6	0.64	NO	0.967	10.096	30.432	30 62	1.215	1.223	189.00	95.4	0.215	
20	20 13C-1,2,3,4,7.8-HxCDD	1.06e6	1.26	NO	0.874	10.096	33.977	33.99	1.014	1.014	174.93	88.3	0.234	
21	21 13C-1,2,3,6,7,8-HxCDD	1.25e6	1.28	NO	1.05	10.096	34.078	34.08	1.017	1.017	172.29	87.0	0.196	ĺ
22	22 13C-1,2,3,7,8.9-HxCDD	1.19e6	1.26	NO	0.974	10.096	34.379	34.36	1.026	1.025	176.34	89.0	0.210	
23	23 13C-1,2,3,4,6,7,8-HpCDD	9.67e5	1.03	NO	0.747	10.096	37.931	37.91	1.132	1.131	186.52	94.2	0.413	1
24	24 13C-OCDD	1.60e6	0.90	NO	0.707	10.096	40.813	40.92	1.218	1.221	326.37	82.4	0.314	
25	25 13C-2,3.7,8-TCDF	2.19e6	0.77	NO	1.07	10.096	24.872	24.81	0.993	0.990	175.37	88.5	0.235	
26	26 13C-1,2,3,7,8-PeCDF	2.16e6	1.58	NO	1.00	10.096	29.205	29.35	1.166	1.172	183.74	92.7	0.249	
27	27 13C-2,3,4,7,8-PeCDF	2.06e6	1.59	NO	0.962	10.096	30.157	30.33	1.204	1.211	182.53	92.1	0.259	-
28	28 13C-1,2,3.4.7,8-HxCDF	1.40e6	0.51	NO	1.05	10.096	33.106	33.11	0.988	0.988	192.84	97.3	0.389	
29	29 13C-1,2,3,6,7,8-HxCDF	1.53e6	0.51	NO	1.19	10.096	33.206	33.24	0.991	0.992	185.3 8	93.6	0.343	
30	30 13C-2,3,4,6,7,8-HxCDF	1.35e6	0.51	NO	1.07	10.096	33.813	33.82	1.009	1.009	183.00	92.4	0.383	
31	31 13C-1,2,3,7.8,9-HxCDF	1.20e6	0.51	NO	0.922	10.096	34.714	34.72	1.036	1.036	188.24	95.0	0.442	

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U:\VG12.PRO\Results\200202R2\200202R2-4.qld

Last Altered:

Wednesday, February 12, 2020 11:27:36 Pacific Standard Time

Printed: Wednesday, February 12, 2020 11:28:31 Pacific Standard Time

Name: 200202R2_4, Date: 03-Feb-2020, Time: 00:38:03, ID: 1903654-10 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013

0.71 76 47	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	9.82e5	0.43	NO	0.767	10.096	36.457	36.47	1.088	1.088	184.49	93.1	0.463	
33	33 13C-1,2,3,4,7,8,9-HpCDF	7.21e5	0.43	NO	0.552	10.096	38.467	38.50	1.148	1.149	188.27	95.0	0.643	
34	34 13C-OCDF	1.82 e 6	88.0	NO	0.789	10.096	41.047	41.10	1.225	1.227	332.76	84.0	0.272	
35	35 37CI-2,3,7,8-TCDD	6.63e5			1.18	10.096	25.723	25.70	1.027	1.026	77.173	97.4	0.0524	1
36	36 13C-1,2,3,4-TCDD	1.45e6	0.79	NO	1.00	10 096	25.080	25.05	1.000	1.000	198.10	100	0.256	
37	37 13C-1,2,3,4-TCDF	2.32e6	0.80	NO	1.00	10.096	23.420	23.39	1.000	1.000	198.10	100	0.250	
38	38 13C-1,2,3,4,6,9-HxCDF	1.37e6	0.50	NO	1.00	10.096	33.520	33.51	1.000	1.000	198.10	100	0.408	
39	39 Total Tetra-Dioxins				0.988	10.096	24.620		0.000		4.4103		0.0729	4.56
40	40 Total Penta-Dioxins				0.972	10.096	29.960		0.000		6.5817		0.0764	6.58
41	41 Total Hexa-Dioxins				0.921	10.096	33.635		0.000		38.088		0.138	38.1
42	42 Total Hepta-Dioxins				0.923	10.096	37.640		0.000		192.38		0.547	192
43	43 Total Tetra-Furans				0.802	10.096	23.610		0.000		115.24		0.106	1 1 9
44	44 1st Func. Penta-Furans				0.907	10.096	27.090		0.000		7.8694		0.0350	7.87
45	45 Total Penta-Furans				0.907	10.096	29.275		0.000		128.71		0.146	132
46	46 Total Hexa-Furans				0.898	10.096	33.555		0.000		166.19		0.153	166
47	47 Total Hepta-Furans				0.851	10.096	37.835		0.000		127.38		0.256	127

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U:\VG12.PRO\Results\200202R2\200202R2-4.qld

Last Altered:

Wednesday, February 12, 2020 11:27:36 Pacific Standard Time

Printed:

Wednesday, February 12, 2020 11:28:31 Pacific Standard Time

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Name: 200202R2_4, Date: 03-Feb-2020, Time: 00:38:03, ID: 1903654-10 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.74	4.771e4	5.993e4	4.328e3	5.485e3	0.79	NO	9.813e3	1.2087	1.2087	0.0729
2	Total Tetra-Dioxins	22.16	2.407e4	2.586e4	2.227e3	2.622e3	0.85	NO	4.848e3	0.59719	0.59719	0.0729
3	Total Tetra-Dioxins	22.67	6.089e3	7.294e3	5.229e2	6.996e2	0.75	NO	0.000e0	0.00000	0.15059	0.0729
4	Total Tetra-Dioxins	23.55	6.130e3	6.523e3	4.220e2	5.016e2	0.84	NO	9.237e2	0.11378	0.11378	0.0729
5	Total Tetra-Dioxins	23.81	1.479e4	1.843e4	1.095 e3	1.315e3	0.83	NO	2.410e3	0.29686	0.29686	0.0729
6	Total Tetra-Dioxins	24.03	1.333e4	1.843e4	1.171e3	1.519e3	0.77	NO	2.690e3	0.33133	0.33133	0.0729
7	Total Tetra-Dioxins	24.21	4.212e3	5.149e3	2.852e2	3.582e2	0.80	NO	6.434e2	0.079248	0.079248	0.0729
8	Total Tetra-Dioxins	24.51	6.414e3	7.897e3	4.643e2	5.528e2	0.84	NO	1.017e3	0.12528	0.12528	0.0729
9	Total Tetra-Dioxins	24.64	5.627e3	8.431e3	4.265e2	5.658e2	0.75	NO	9.923e2	0.12223	0.12223	0.0729
10	Total Tetra-Dioxins	25.45	3.900e4	5.311e4	3.162e3	3.906e3	0.81	NO	7.067e3	0.87052	0.87052	0.0729
11	2,3,7,8-TCDD	25.72	2.319e4	4.152e4	1.790e3	2.606e3	0.69	NO	4.397e3	0.54155	0.54155	0.0729
12	Total Tetra-Dioxins	26.02	6.876e3	8.110e3	4.591e2	5.447e2	0.84	NO	1.004e3	0.12364	0.12364	0.0729

Penta-Dioxins

176	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.44	7.021e4	8.543e4	4.965e3	7.055e3	0 70	NO	1.202e4	1.8366	1.8366	0.0764
2	Total Penta-Dioxins	28.91	2.050e4	3.051e4	1 02 0 e3	1.545e3	0.66	NO	2.565e3	0.39192	0.39192	0.0764
3	Total Penta-Dioxins	29.40	4.457e4	7.963e4	2.291e3	4.246e3	0.54	NO	6.536e3	0.99878	0.99878	0.0764
4	Total Penta-Dioxins	29.57	4.523e4	5.886e4	1.911e3	2.889e3	0.66	NO	4.800e3	0.73346	0.73346	0.0764
5	Total Penta-Dioxins	29.66	2.445e4	3.530e4	9.875e2	1.796e3	0.55	NO	2.783e3	0.42532	0.42532	0.0764
6	Total Penta-Dioxins	29.87	2.343e4	3.529e4	2.050e3	2.923e3	0.70	NO	4.973e3	0.75987	0.75987	0.0764
7	Total Penta-Dioxins	30.21	1.429e4	2.234e4	5.699e2	9.703e2	0.59	NO	1.540e3	0.23534	0.23534	0.0764
8	1,2,3,7,8-PeCDD	30.65	3.875e4	6.012e4	2.030e3	3.129e3	0.65	NO	5.159e3	0.78838	0.78838	0.0764
9	Total Penta-Dioxins	30.70	8.512e3	1.576e4	5.590e2	9.158e2	0.61	NO	1.475e3	0.22534	0.22534	0.0764
10	Total Penta-Dioxins	31.02	1.116e4	1.369e4	5.132e2	7.08 4e 2	0.72	NO	1.222e3	0.18666	0.18666	0.0764

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Dataset:

U:\VG12.PRO\Results\200202R2\200202R2-4.qld

Last Altered:

Wednesday, February 12, 2020 11:27:36 Pacific Standard Time

Printed: Wednesday, February 12, 2020 11:28:31 Pacific Standard Time

Name: 200202R2_4, Date: 03-Feb-2020, Time: 00:38:03, ID: 1903654-10 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013

Hexa-Dioxins

84 BATT	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.51	7.540e5	5.776e5	3.562e4	2.918e4	1.22	NO	6.481e4	11.937	11.937	0.138
2	Total Hexa-Dioxins	33.06	8.813e4	7.635e4	4.516e3	3.770e3	1.20	NO	8.287e3	1.5264	1.5264	0.138
3	Total Hexa-Dioxins	33.32	7.601e5	5.978e5	5.009e4	3.953e4	1.27	NO	8.961e4	16.506	16.506	0.138
4	Total Hexa-Dioxins	33.42	3.233e4	2.346e4	1.665e3	1.361e3	1.22	NO	3.026e3	0.55733	0.55733	0.138
5	1,2,3,4,7,8-HxCDD	34.00	4.311e4	3.304e4	2.314e3	1.683e3	1.37	NO	3.996e3	0.69708	0.69708	0.122
6	1.2,3,6,7.8-HxCDD	34.10	2.498e5	2.231e5	1.398e4	1.184e4	1.18	NO	2.582e4	4.4423	4.4423	0.131
7	Total Hexa-Dioxins	34.28	2.376e4	2.165e4	1.260e3	1.074e3	1.17	NO	2.333e3	0.42982	0.42982	0.138
8	1,2,3,7,8,9-HxCDD	34.38	1.111e£	8.492e4	6.192e3	4.813e3	1.29	NO	1.101e4	1.9918	1.9918	0.142

Hepta-Dioxins

chucks &	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	36.87	3.464e6	3.404e6	2.351e5	2.350e5	1.00	NO	4.700e5	104.32	104.32	0.547
2	1,2,3,4,6,7,8-HpCDD	37.92	2.958e6	2.876e6	2.016e5	1.951e5	1.03	NO	3.967e5	88.057	88.057	0.547

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Dataset:

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Name: 200202R2_4, Date: 03-Feb-2020, Time: 00:38:03, ID: 1903654-10 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013

Tetra-Furans

WELD	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.66	1.766e4	2.031e4	1.430e3	1.712e3	0.83	NO	3.142e3	0.35443	0.35443	0.106
2	Total Tetra-Furans	20.17	3.831e4	5.160e4	3.383e3	4.402e3	0.77	NO	7.785e3	0.87816	0.87816	0.106
3	Total Tetra-Furans	20.77	4.489e5	5.976e5	3.861e4	5.273e4	0.73	NO	9.134e4	10.302	10.302	0.106
4	Total Tetra-Furans	21.31	6.664e4	9.320e4	9.513e3	1.275e4	0.75	NO	2.226e4	2.5109	2.5109	0.106
5	Total Tetra-Furans	21.72	3.962e5	4.946e5	3.573e4	4.729e4	0.76	NO	8.302e4	9.3644	9 3644	0.106
6	Total Tetra-Furans	22.19	1.257e5	1.714e5	1.276e4	1.640e4	0.78	NO	2.917e4	3.2901	3.2901	0.106
7	Total Tetra-Furans	22.37	2.870e4	3.575e4	2.451e3	3.422e3	0.72	NO	5.873e3	0.66247	0.66247	0.106
8	Total Tetra-Furans	22.56	8.024e4	1.036e5	6.947e3	1.019e4	0.68	NO	1.713e4	1.9328	1.9328	0.106
9	Total Tetra-Furans	23.00	1.748e4	1.845e4	1.232e3	1.659e3	0.74	NO	2.890e3	0.32601	0.32601	0.106
10	Total Tetra-Furans	23.12	2.277e4	2.465e4	1.659e3	2.157e3	0.77	NO	3.816e3	0.43048	0.43048	0.106
11	Total Tetra-Furans	23.31	1.082e5	1.492e5	7.484e3	8.700e3	0.86	NO	1.618e4	1.8255	1.8255	0.106
12	Total Tetra-Furans	23.40	2.351e5	3.143e5	2.209e4	3.235e4	0.68	NO	5.444e4	6.1410	6.1410	0.106
13	Total Tetra-Furans	23.89	1.558e6	2.084e6	1.213e5	1.637e5	0.74	NO	2.850e5	32.150	32.150	0.106
14	Total Tetra-Furans	24.18	5.598e4	8.832e4	4.617e3	6.250e3	0.74	NO	1.087e4	1.2257	1.2257	0.106
15	Total Tetra-Furans	24.39	1 508e4	2.582e4	1.610e3	2.233e3	0.72	NO	3.844e3	0.43355	0.43355	0.106
16	Total Tetra-Furans	24.60	2.356e4	3.813e4	1.198e3	1.757e3	0.68	NO	2.955e3	0.33333	0.33333	0.106
17	Total Tetra-Furans	24.72	2.255e5	3.151e5	1.431e4	1.923e4	0.74	NO	3.354e4	3.7837	3.7837	0.106
18	2,3,7,8-TCDF	24.82	1.864e6	2.544e6	1.396e5	1.852e5	0.75	NO	3.248e5	36.641	36.641	0.106
19	Total Tetra-Furans	25.20	1.115e5	1.512e5	8.551e3	1.105e4	0.77	NO	1.960e4	2.2106	2.2106	0.106
20	Total Tetra-Furans	25.44	2.221e4	3.226e4	1.324e3	1.739e3	0.76	NO	3.062e3	0.34543	0.34543	0.106
21	Total Tetra-Furans	26.35	4.265e3	7.810e3	3.129e2	3.468e2	0.90	YE\$	0.000e0	0.00000	0.069230	0.106
22	Total Tetra-Furans	26.51	6.506e3	9.133e3	3.984e2	5 051e2	0.79	NO	9.035e2	0.10191	0.10191	0.106
23	Total Tetra-Furans	26.81	2.656e5	2.692e5	1.656e4	1.757e4	0.94	YES	0.000e0	0.00000	3.5087	0 106

Penta-Furans function 1

N	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	26.80	7.331e5	4.637e5	4.659e4	2.937e4	1.59	NO	7.596e4	7.8694	7.8694	0.0350

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Dataset: U:\VG12.PR0\Results\200202R2\200202R2-4.qld

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Penta-Furans

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.24	1.209e5	7.468e4	7.336e3	4.666e3	1.57	NO	1.200e4	1.2433	1.2433	0.146
2	Total Penta-Furans	28.38	2.303e6	1.563e6	1.558e5	9.836e4	1.58	NO	2.541e5	26.326	26.326	0.146
3	Total Penta-Furans	28.96	2.558e5	1.690e5	1.507e4	9.857e3	1.53	NO	0.000e0	0.00000	2.5817	0.146
4	Total Penta-Furans	29.00	8.026e4	4.655e4	4.156e3	2.645e3	1.57	NO	0.000e0	0.00000	0.70453	0.146
5	Total Penta-Furans	29.17	5.754e5	3.853e5	3.053e4	1.999e4	1.53	NO	5.052e4	5.2334	5.2334	0.146
6	1.2,3,7,8-PeCDF	29.37	5.381e6	3.535e6	3.046e5	2.002e5	1.52	NO	5.048e5	51.087	51.087	0.147
7	Total Penta-Furans	29.63	1.757e6	1 157e6	8.769e4	5.999e4	1.46	NO	1.477e5	15.299	15.299	0.146
8	Total Penta-Furans	30.13	1.488e4	7.978e3	6.086e2	4.077e2	1.49	NO	1.016e3	0.10529	0.10529	0.146
9	Total Penta-Furans	30.23	5.072e4	4.305e4	2.532e3	1.841e3	1.38	NO	4.374e3	0.45310	0.45310	0.146
10	2,3,4,7,8-PeCDF	30.35	2.633e6	1.651e6	1.376e5	8.824e4	1.56	NO	2.258e5	22.846	22.846	0.138
11	Total Penta-Furans	30.38	1.256e6	7.831e5	2.826e4	1.732e4	1.63	NO	4.558e4	4.7221	4.7221	0.146
12	Total Penta-Furans	31.28	1.554e5	1 070e5	8.217e3	5.260e3	1.56	NO	1.348e4	1.3961	1.3961	0.146

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	31.96	2.913e5	2.251e5	1.337e4	1.129e4	1.18	NO	2.466e4	3.9613	3.9613	0.153
2	Total Hexa-Furans	32.12	1.031e6	9.225e5	5.088e4	4.387e4	1.16	NO	9.475e4	15.219	15.219	0.153
3	Total Hexa-Furans	32.49	2.961e4	2.268e4	1.314e3	1.109e3	1.18	NO	2.423e3	0.38920	0.38920	0.153
4	Total Hexa-Furans	32.68	9.434e5	7.778e5	4.501e4	3.822e4	1.18	NO	8.322e4	13.368	13.368	0.153
5	Total Hexa-Furans	33.03	6.717e4	5.360e4	3.507e3	2.798e3	1.25	NO	6.305e3	1.0127	1.0127	0.153
6	1,2,3,4,7,8-HxCDF	33.13	5.623e6	4.839e6	2.995e5	2.568e5	1.17	NO	5.563e5	91.045	91.045	0.145
7	1.2,3.6,7,8-HxCDF	33.25	1.651e6	1.356e6	8.928e4	7.525e4	1.19	NO	1.645e5	25.312	25.312	0.144
8	Total Hexa-Furans	33.52	3.002e4	2.611e4	1.339e3	1.196e3	1.12	NO	2.534e3	0.40710	0.40710	0.153
9	2.3,4,6.7,8-HxCDF	33.83	3.782e5	3.252e5	2.020e4	1.747e4	1.16	NO	3.767e4	6.1379	6.1379	0.154
10	1.2.3,7,8,9-HxCDF	34.74	2.502e5	2.194e5	5.546e3	5.217e3	1.06	NO	1.076e4	2.0635	2.0635	0.201
11	Total Hexa-Furans	34.78	4.683e5	3.663e5	2.504e4	2.022e4	1.24	NO	4.526e4	7.2707	7.2707	0.153

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Quantify Totals Report MassLynx 4.1 SCN815 Vista Analytical Laboratory

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Hepta-Furans

13,72	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.49	1.643e6	1.709e6	1.106e5	1.154e5	0.96	NO	2.260e5	53.577	53.577	0.235
2	Total Hepta-Furans	36.88	3.749e4	3.786e4	2.396e3	2.310e3	1.04	NO	4.706e3	1.2862	1.2862	0.256
3	Total Hepta-Furans	37.09	1.361e6	1.386e6	9.764e4	9.916e4	0.98	NO	1.968e5	53.785	53.785	0.256
4	1,2,3,4,7.8,9-HpCDF	38.51	5.906e5	5.764e5	3.326e4	3.357e4	0.99	NO	6.683e4	18.728	18.728	0.247

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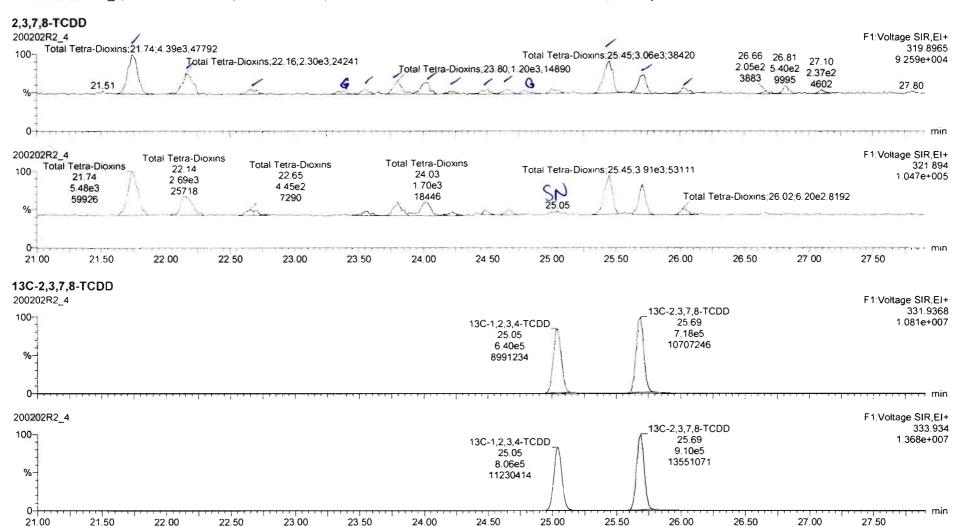
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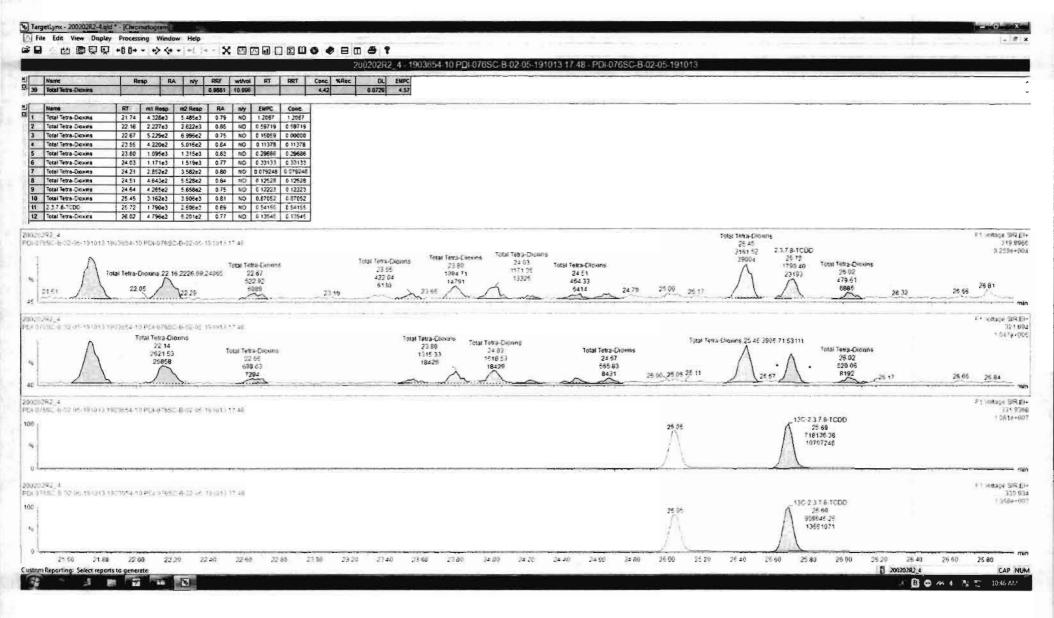
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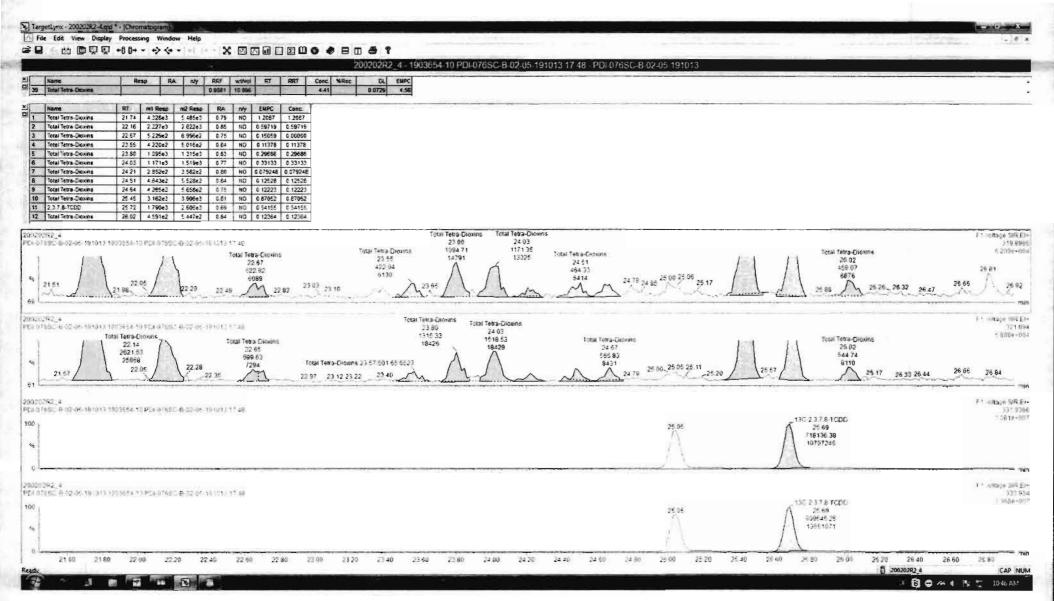
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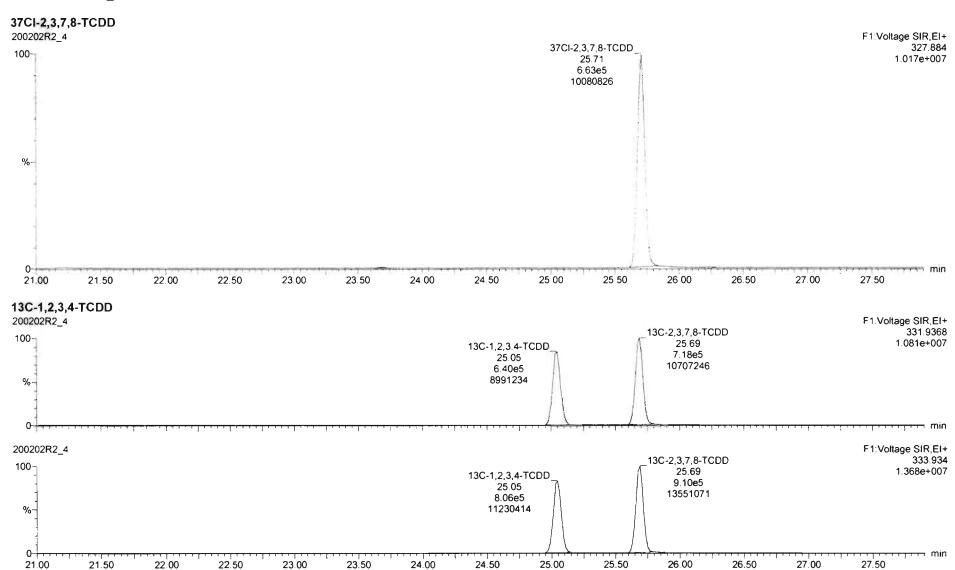
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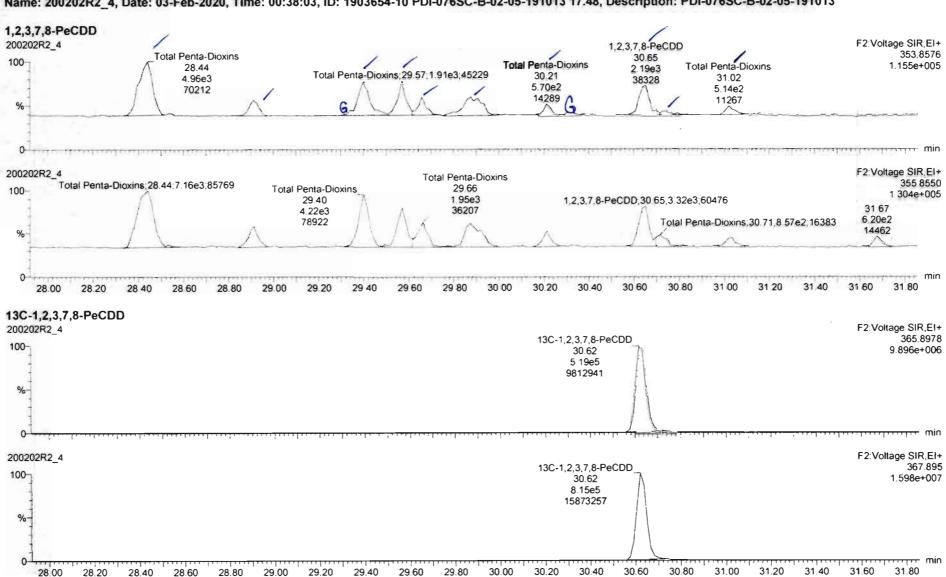
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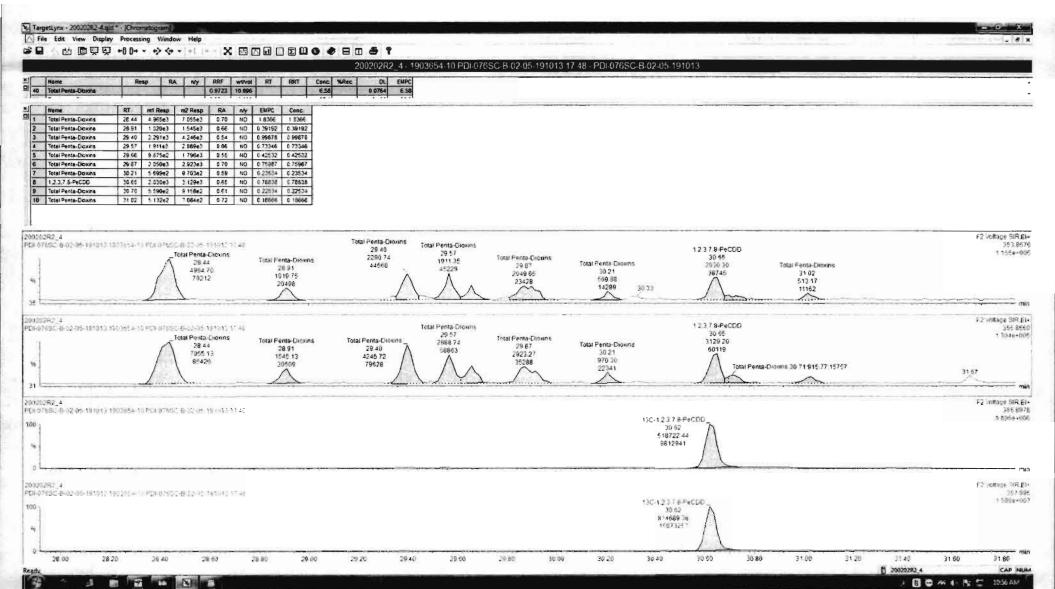
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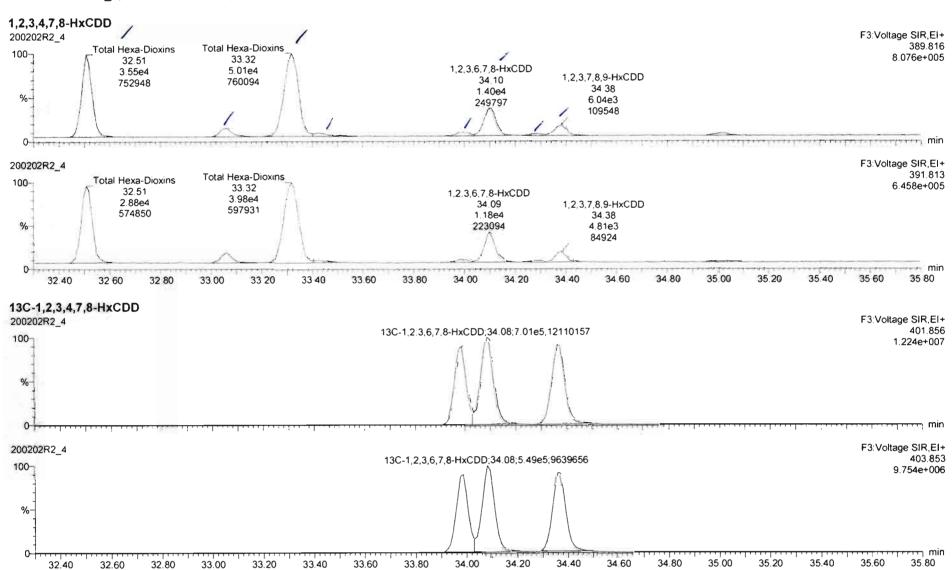


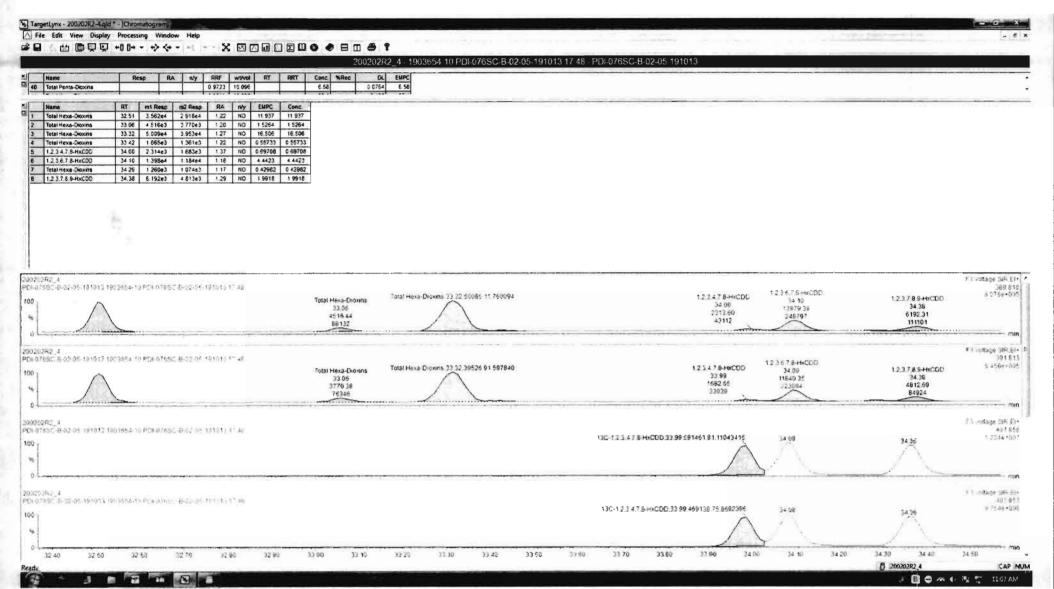


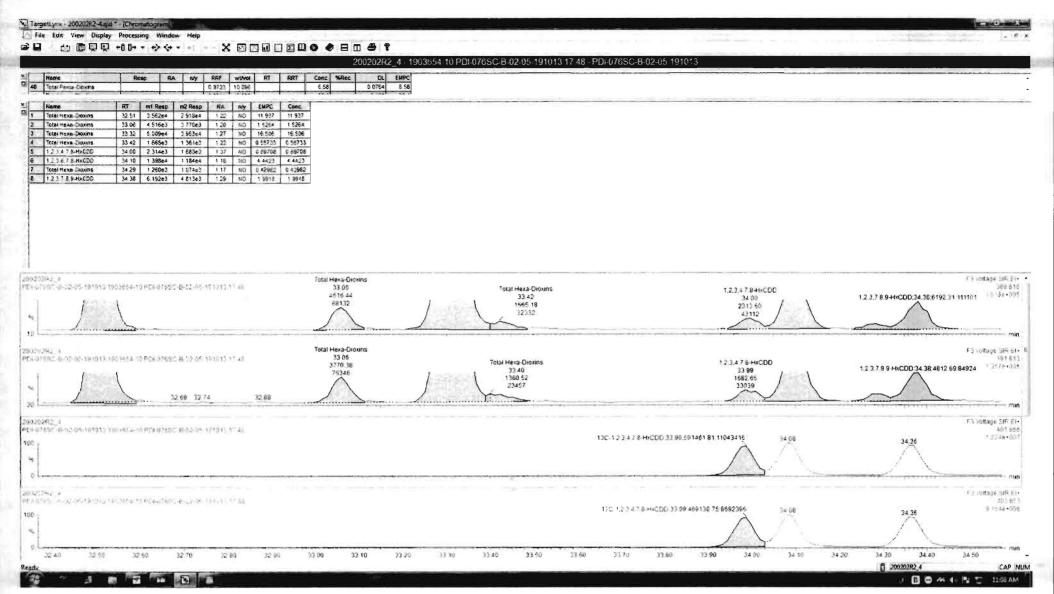
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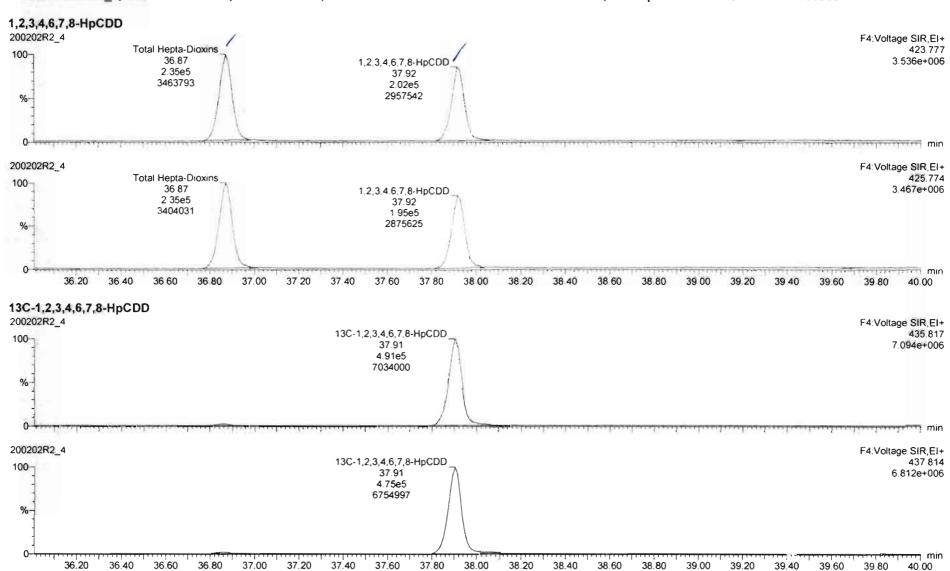




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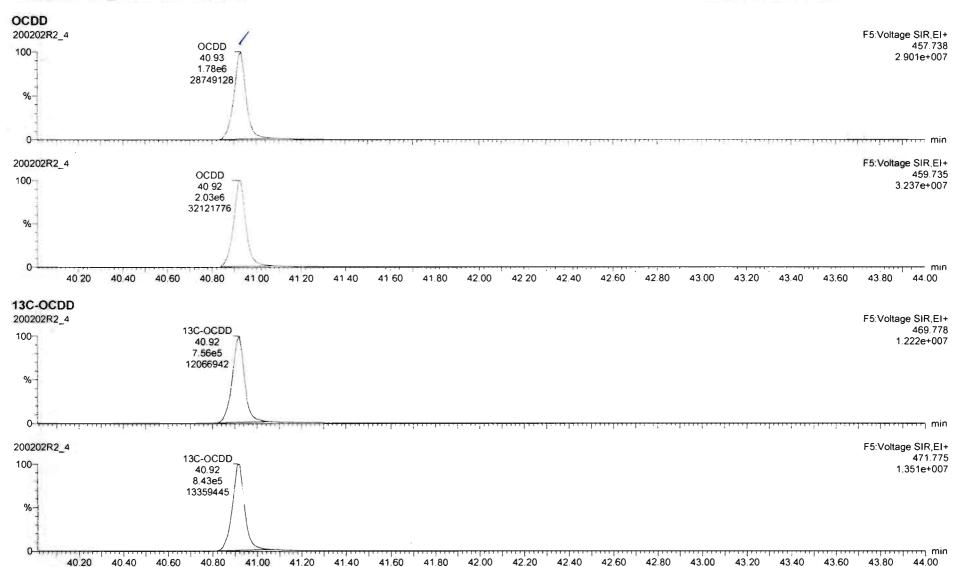
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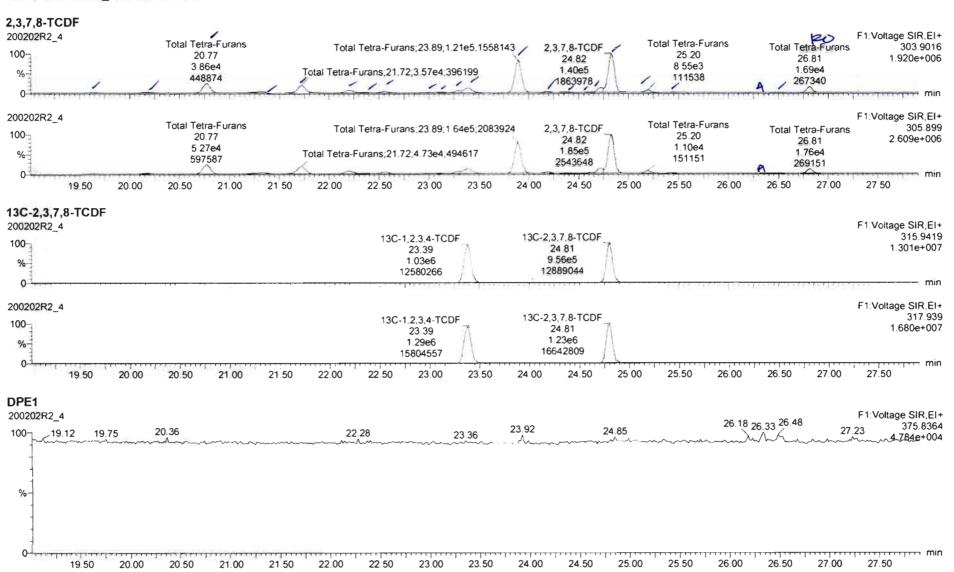
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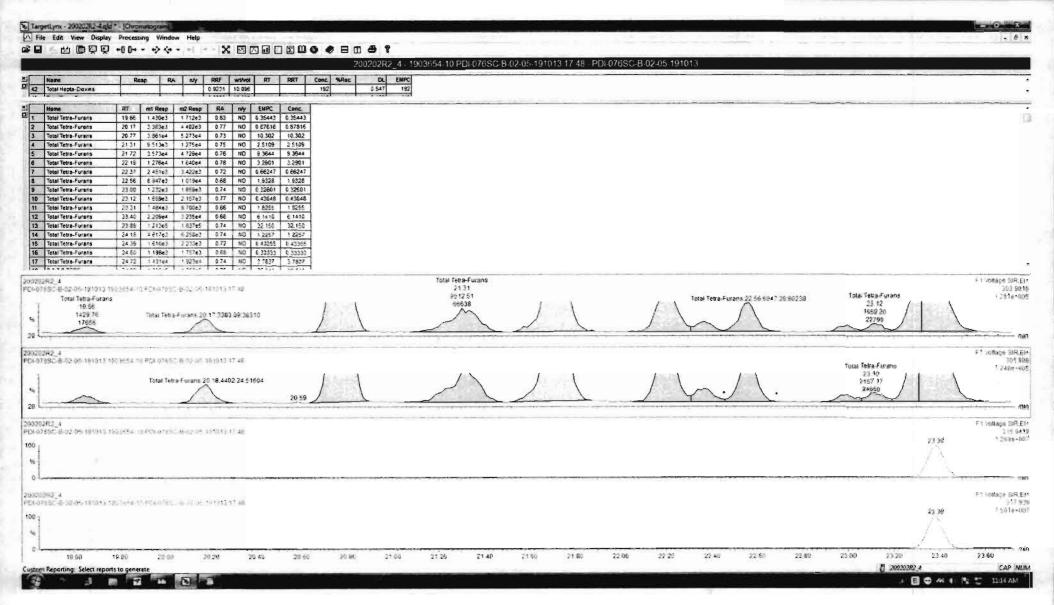


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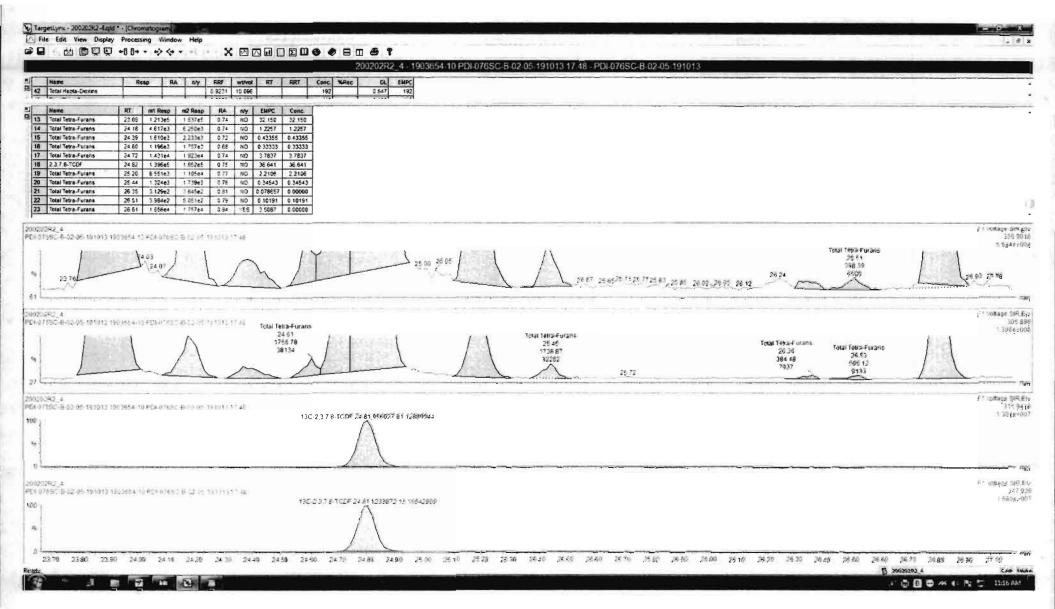
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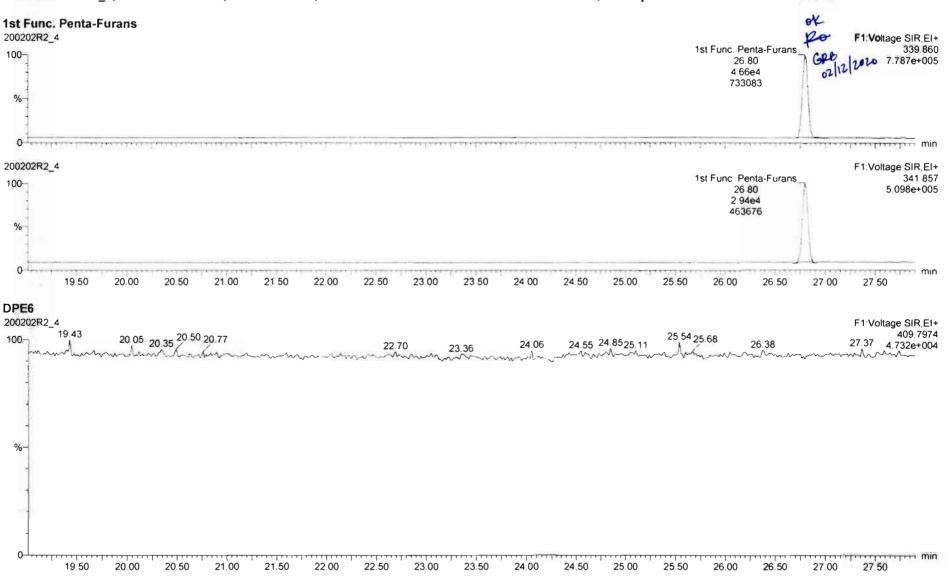


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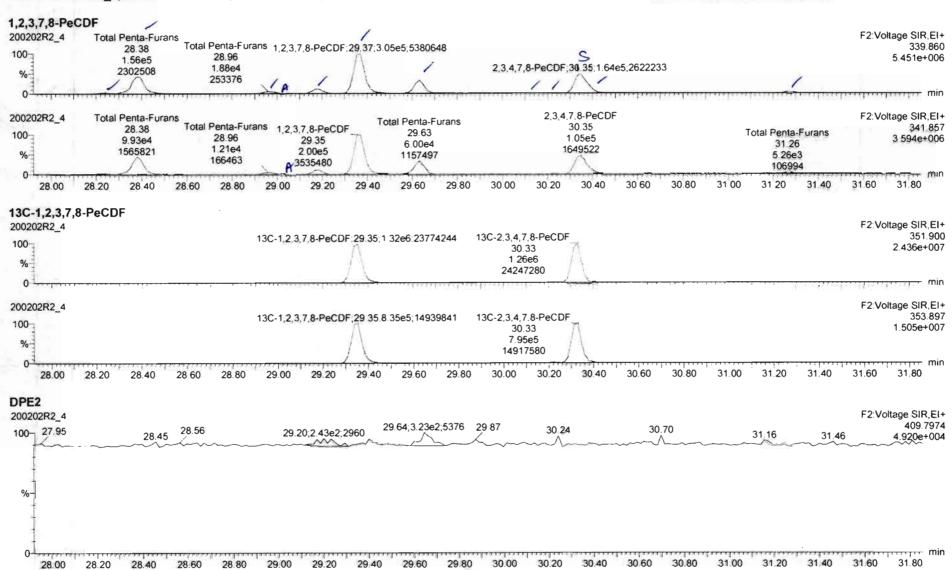
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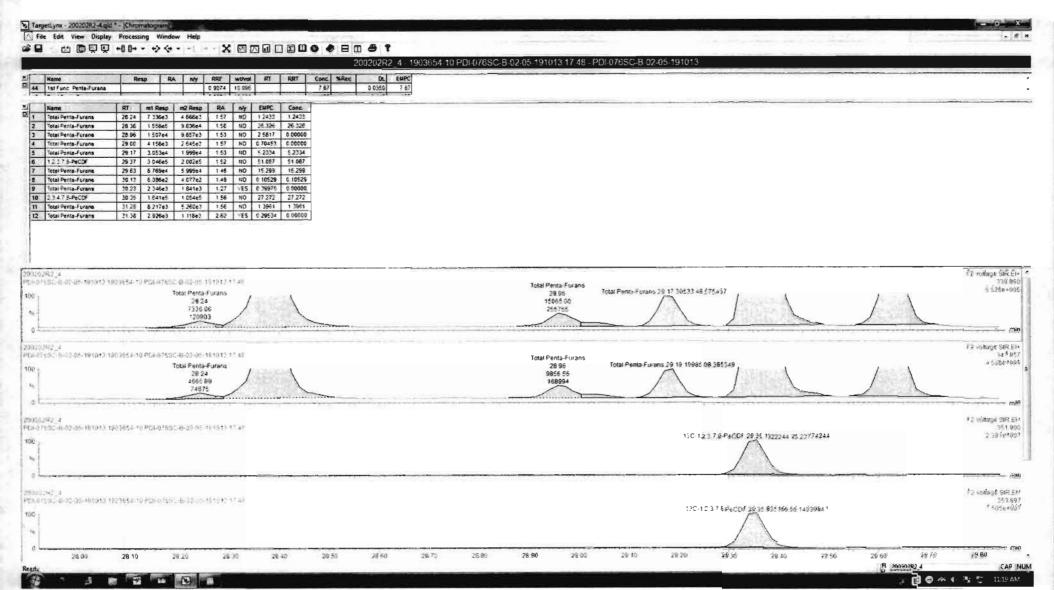
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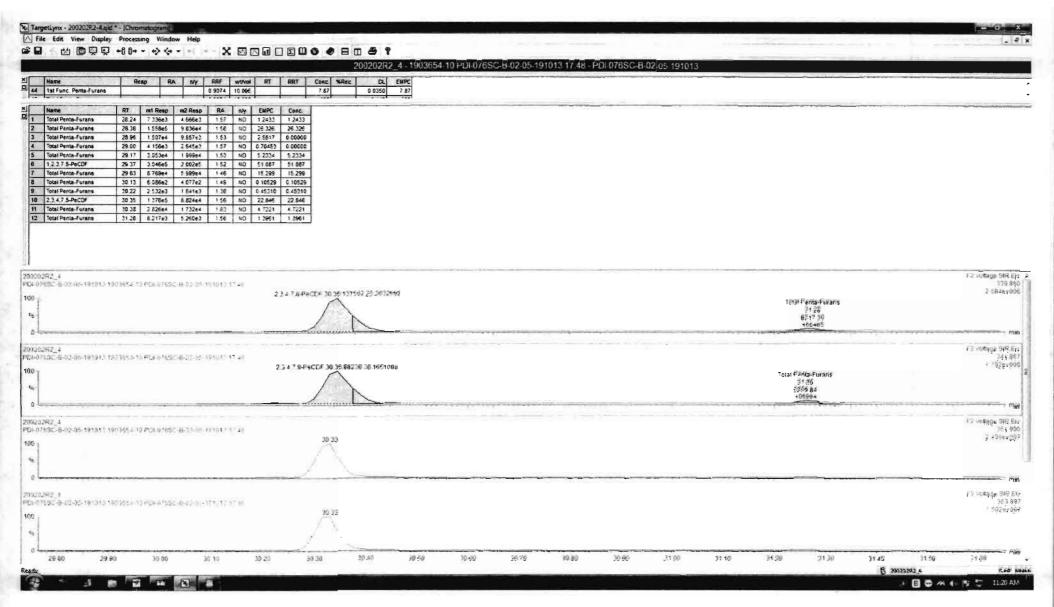
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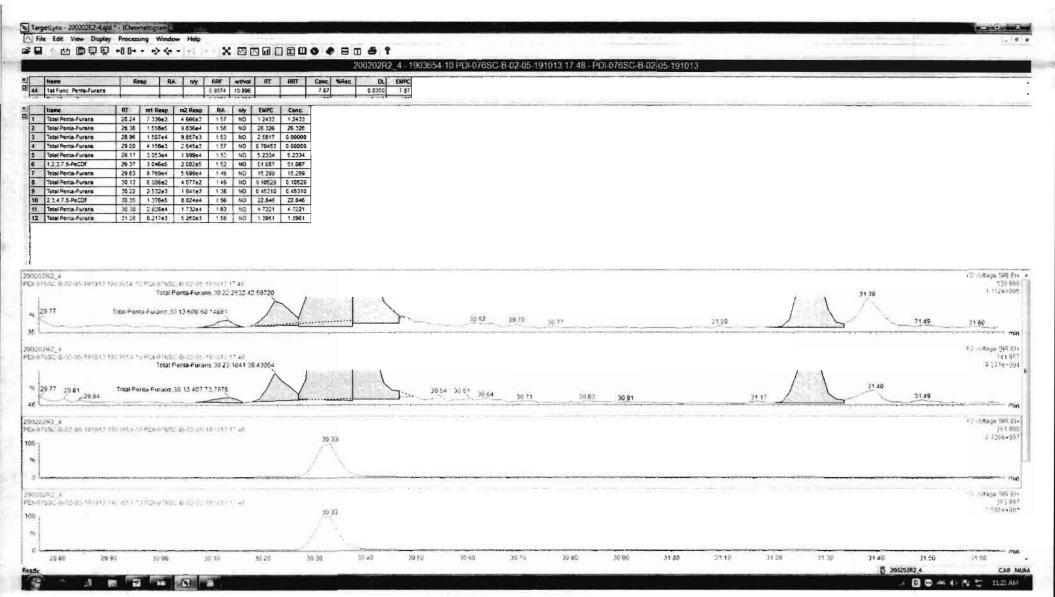




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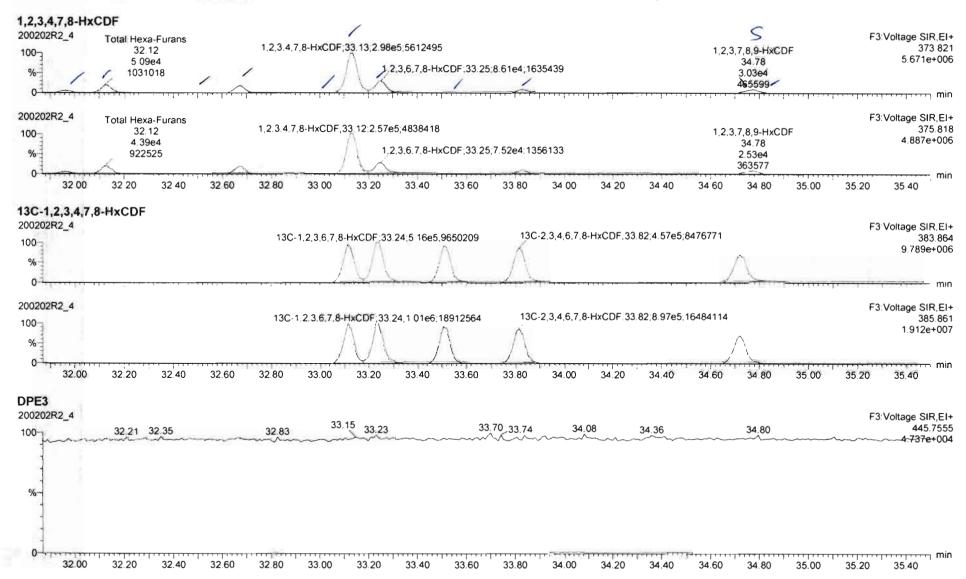


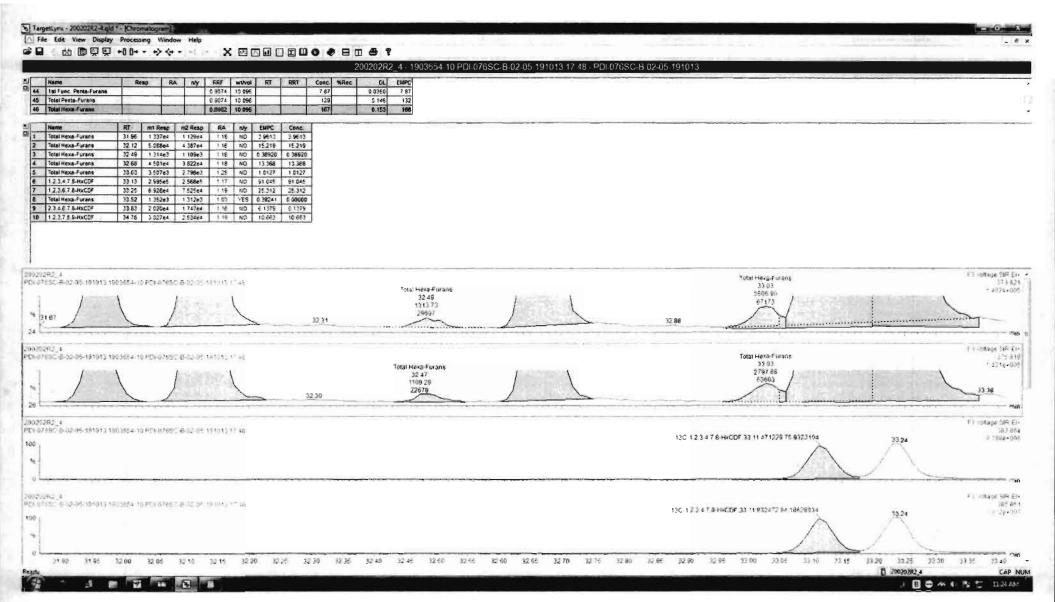
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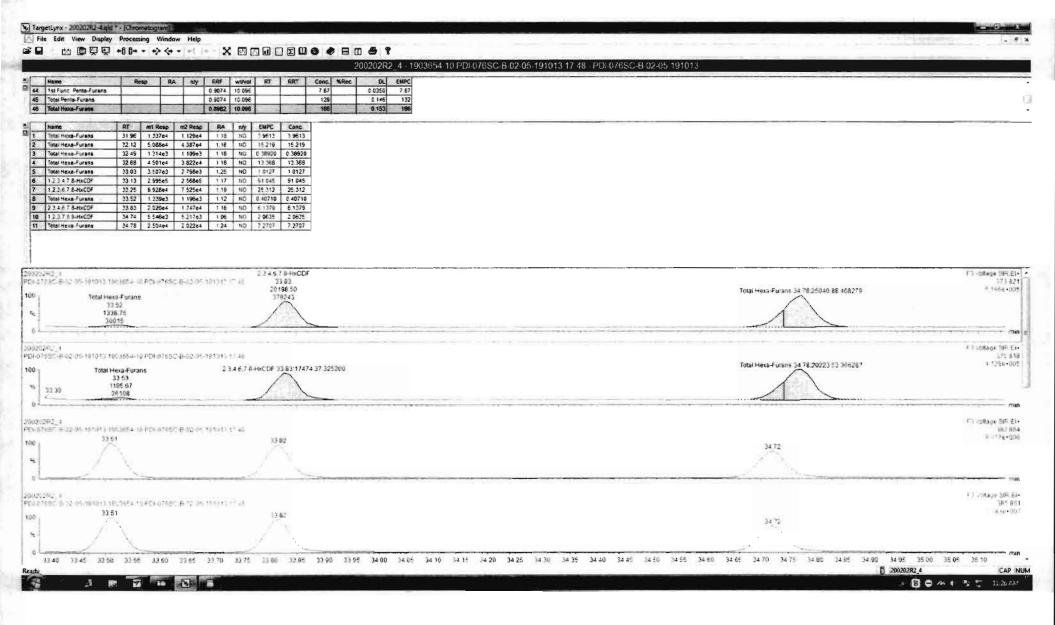


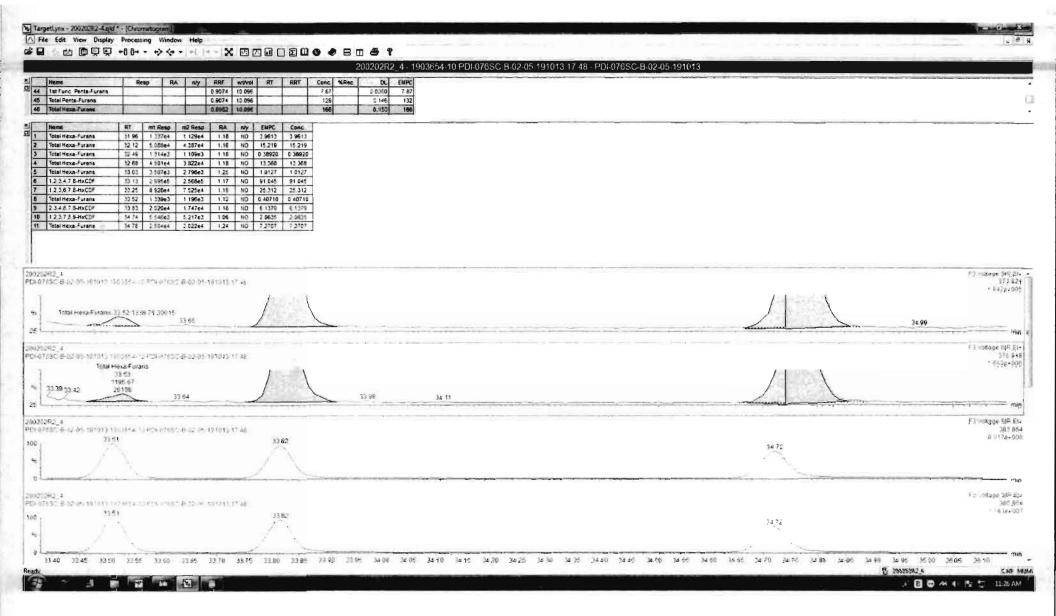
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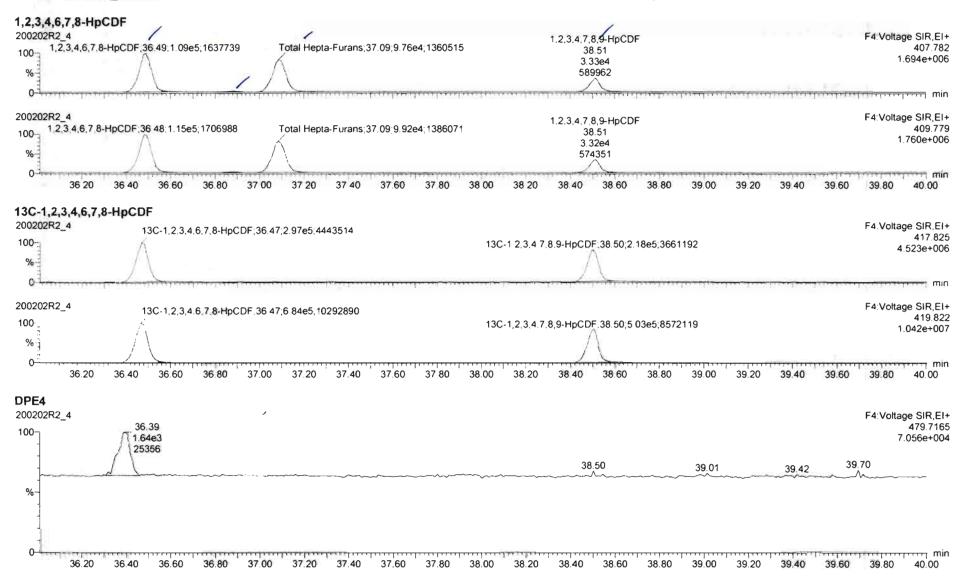


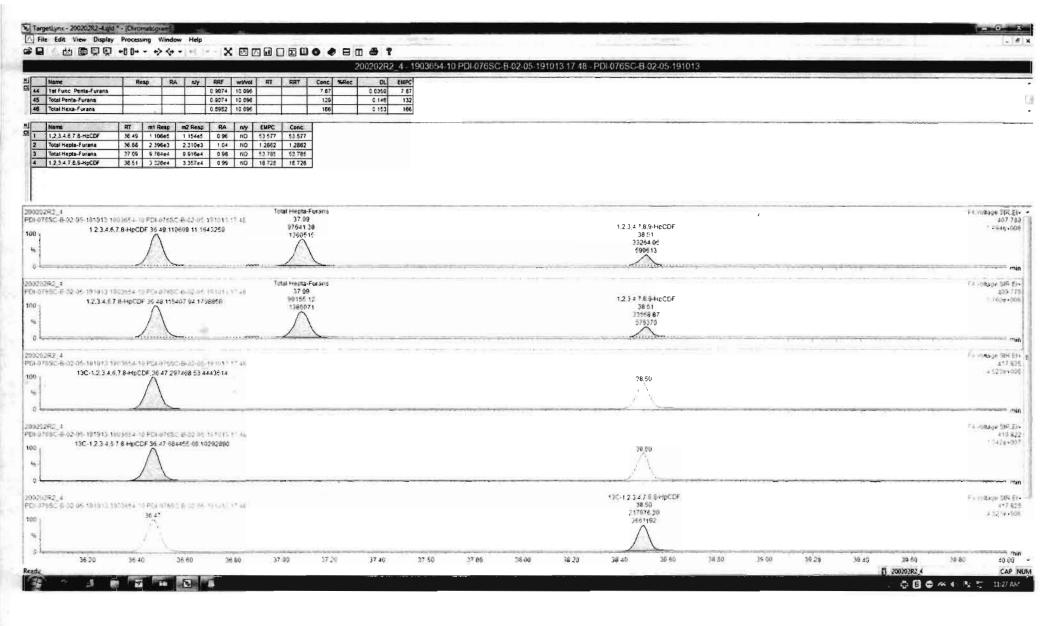




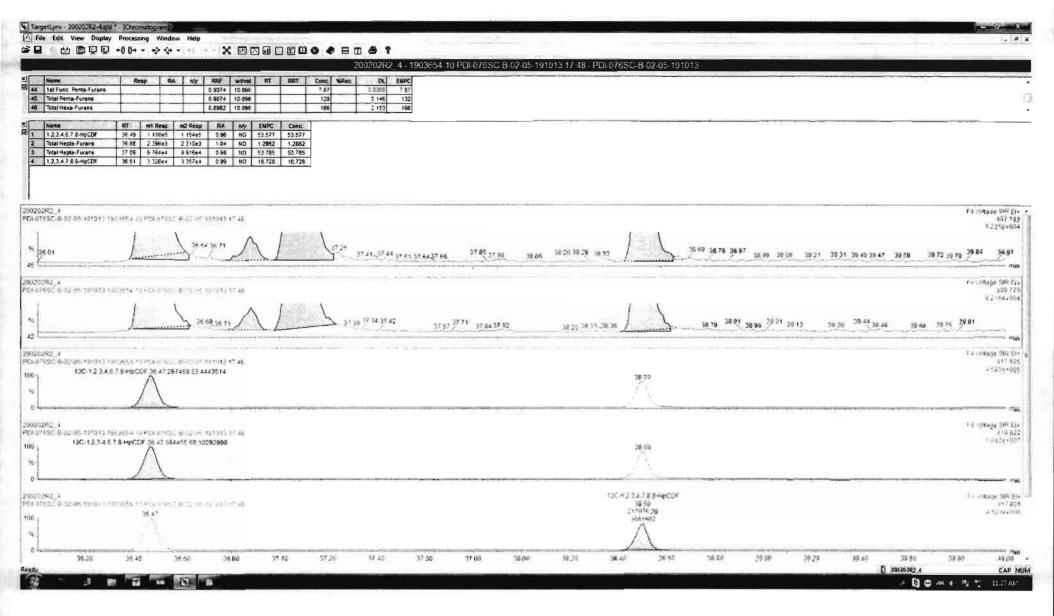
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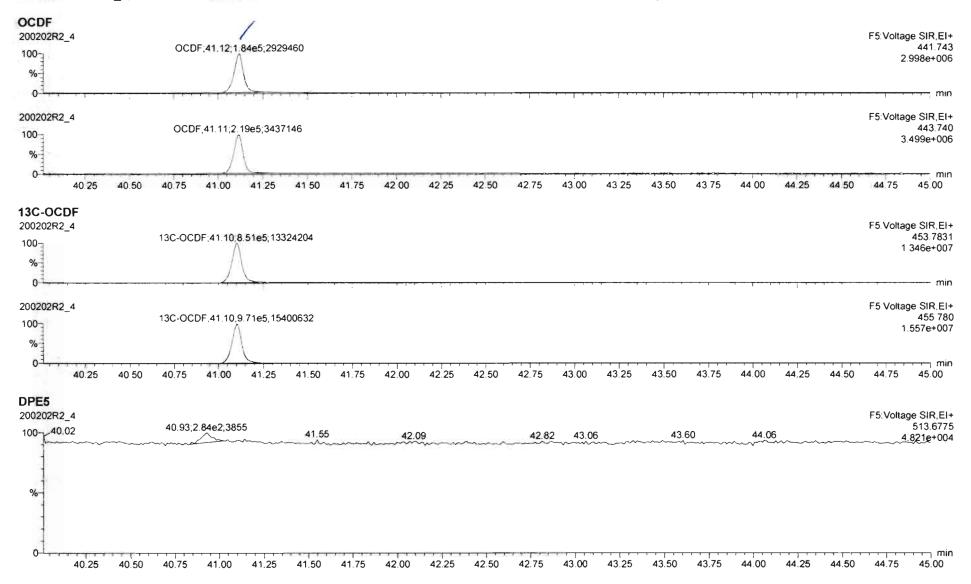


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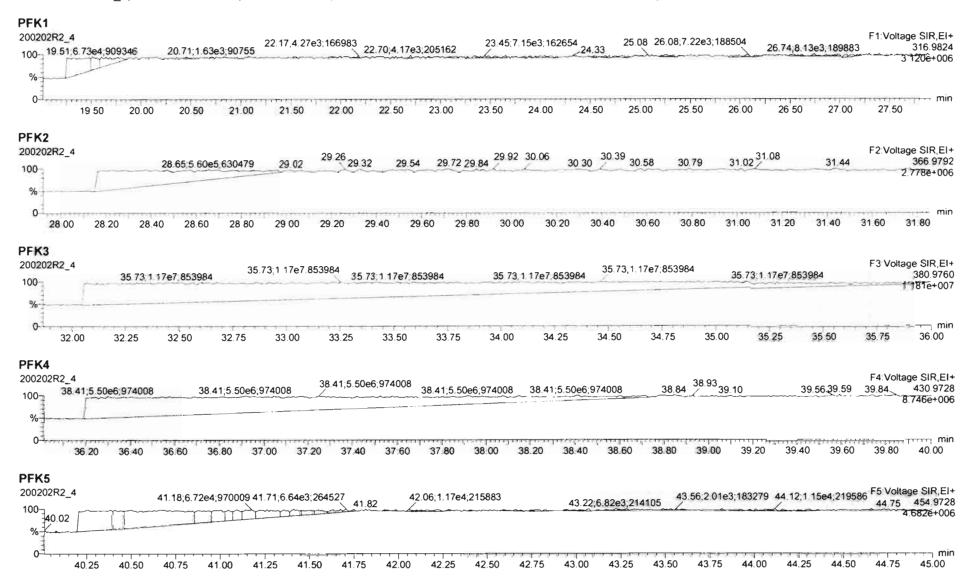
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Monday, February 03, 2020 09:49:36 Pacific Standard Time Monday, February 03, 2020 09:49:46 Pacific Standard Time



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Dataset:

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Thursday, March 19, 2020 4:50:03 PM Pacific Daylight Time Thursday, March 19, 2020 4:50:24 PM Pacific Daylight Time

GPB 03/19/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

* SEE DIL.

Name: 200318R2_8, Date: 19-Mar-2020, Time: 09:05:12, ID: 1903654-11RE3 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

CVI	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	8.49e3	0.75	NO	0.983	10.004	25.871	25.87	1.001	1.001	2.2471		0.242	2.25
2	2 1,2,3,7,8-PeCDD	1.03e4	0.64	NO	0.921	10.004	31.101	31.09	1.001	1.000	3.3871		0.318	3.39
3	3 1,2,3,4,7,8-HxCDD	1.16e4	1.22	NO	1.13	10.004	34.480	34.49	1.000	1.001	3.8611		0.325	3.86
4	4 1,2,3,6,7,8-HxCDD	8.47e4	1.21	NO	0.984	10.004	34.576	34.59	1.000	1.000	29.449		0.355	29.4
5	5 1,2,3,7,8,9-HxCDD	3.29e4	1.23	NO	0.967	10.004	34.842	34.85	1.000	1.001	10.736		0.340	10.7
6	6 1,2,3,4,6,7,8-HpCDD	3.79e6	1.04	NO	1.01	10.004	38.283	38.28	1.000	1.000	1317.6		1.60	1320
7	7 OCDD	3.41e7	0.88	NO	1.05	10.004	41.340	41.35	1.000	1.000	12388 EX	f	0.967	12400
8	8 2,3,7,8-TCDF	7.81e5	0.76	NO	0.915	10.004	24.862	24.88	1.001	1.002	179.21 ((67)	0.478	179
9	9 1,2,3,7,8-PeCDF	1.13e6	1.53	NO	0.959	10.004	29.757	29.75	1.001	1.001	264.57		0.253	265
10	10 2,3,4,7,8-PeCDF	5.09e5	1.55	NO	1.00	10.004	30.789	30.77	1.001	1.001	117.79		0.237	118
11	11 1,2,3,4,7,8-HxCDF	1.57e6	1.22	NO	1.04	10.004	33.618	33.64	1.000	1.001	428.80		0.236	429
12	12 1,2,3,6,7,8-HxCDF	4.18e5	1.21	NO	1.01	10.004	33.745	33.75	1.000	1.000	112.02		0.233	112
13	13 2,3,4,6,7,8-HxCDF	1.14e5	1.24	NO	1.09	10.004	34.344	34.32	1.001	1.000	29.532		0.263	29.5
14	14 1,2,3,7,8,9-HxCDF	1.47e5	1.21	NO	1.03	10.004	35.173	35.23	1.000	1.002	43.110		0.302	43.1
15	15 1,2,3,4,6,7,8-HpCDF	9.49e5	1.01	NO	1.05	10.004	36.903	36.89	1.001	1.001	298.58		0.452	299
16	16 1,2,3,4,7,8,9-HpCDF	2.35e5	1.01	NO	1.21	10.004	38.911	38.93	1.000	1.001	83.920		0.511	83.9
17	17 OCDF	2.25e6	0.87	NO	0.947	10.004	41.510	41.53	1.000	1.001	818.09		0.430	818
18	18 13C-2,3,7,8-TCDD	7.68e5	0.78	NO	1.18	10.004	25.843	25.84	1.029	1.029	149.67	74.9	1.21	
19	19 13C-1,2,3,7,8-PeCDD	6.61e5	0.64	NO	0.864	10.004	31.048	31.08	1.236	1.237	176.46	88.3	0.287	
20	20 13C-1,2,3,4,7,8-HxCDD	5.30e5	1.25	NO	0.754	10.004	34.474	34.47	1.014	1.014	159.53	79.8	0.282	
21	21 13C-1,2,3,6,7,8-HxCDD	5.84e5	1.25	NO	0.925	10.004	34.582	34.58	1.017	1.017	143.16	71.6	0.230	1
22	22 13C-1,2,3,7,8,9-HxCDD	6.32e5	1.23	NO	0.829	10.004	34.844	34.83	1.025	1.024	172.97	86.5	0.257	
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.72e5	1.06	NO	0.598	10.004	38.306	38.27	1.127	1.126	216.76	108	0.491	
24	24 13C-OCDD	1.05e6	0.92	NO	0.571	10.004	41.457	41.34	1.219	1.216	416.25	104	0.388	1
25	25 13C-2,3,7,8-TCDF	9.52e5	0.77	NO	1.09	10.004	24.861	24.84	0.990	0.989	142.37	71.2	1.22]
26	26 13C-1,2,3,7,8-PeCDF	8.90e5	1.57	NO	0.876	10.004	29.714	29.74	1.183	1.184	165.47	82.8	0.550	
27	27 13C-2,3,4,7,8-PeCDF	8.61e5	1.59	NO	0.844	10.004	30.729	30.76	1.223	1.224	166.21	83.1	0.571	
28	28 13C-1,2,3,4,7,8-HxCDF	7:05e5	0.52	NO	1.00	10.004	33.620	33.62	.0.989	0.989	159.80	79.9	0.347	
29	29 13C-1,2,3,6,7,8-HxCDF	7.37e5	0.52	NO	1.12	10.004	33.729	33.74	0.992	0.992	149.56	74.8	0.311	
30	30 13C-2,3,4,6,7,8-HxCDF	7.09e5	0.51	NO	1.04	10.004	34.310	34.31	1.009	1.009	155.38	77.7	0.336	
31	31 13C-1,2,3,7,8,9-HxCDF	6.63e5	0.52	NO	0.873	10.004	35.184	35.17	1.035	1.034	172.30	86.2	0.398	

Work Order 1903654

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Dataset:

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Last Altered:

Thursday, March 19, 2020 4:50:03 PM Pacific Daylight Time

Printed: Thursday, March 19, 2020 4:50:24 PM Pacific Daylight Time

Name: 200318R2_8, Date: 19-Mar-2020, Time: 09:05:12, ID: 1903654-11RE3 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

Contract to	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.06e5	0.43	NO	0.771	10.004	36.901	36.87	1.085	1.084	178.45	89.3	0.366	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.63e5	0.43	NO	0.519	10.004	38.989	38.91	1.147	1.144	202.31	101	0.544	1
34	34 13C-OCDF	1.16e6	0.88	NO	0.696	10.004	41.638	41.51	1.225	1.221	378.13	94.6	0.350	İ
35	35 37CI-2.3,7,8-TCDD	2.88e5			1.17	10.004	25.853	25.87	1.029	1.030	56.516	70.7	0.234	
36	36 13C-1,2,3,4-TCDD	8.67e5	0.80	NO	1.00	10.004	25.050	25.12	1.000	1.000	199.91	100	1.43	
37	37 13C-1,2,3,4-TCDF	1.23e6	0.80	NO	1.00	10.004	23.190	23.21	1.000	1.000	199.91	100	1.33	
38	38 13C-1,2,3,4,6,9-HxCDF	8.81e5	0.52	NO	1.00	10.004	33.880	34.00	1.000	1.000	199.91	100	0.347	
39	39 Total Tetra-Dioxins				0.983	10.004	24.620		0.000		22.723		0.242	22.7
40	40 Total Penta-Dioxins				0.921	10.004	29.960		0.000		34.247		0.318	34.4
41	41 Total Hexa-Dioxins				0.984	10.004	33.635		0.000		299.55		0.353	300
42	42 Total Hepta-Dioxins				1.01	10.004	37.640		0.000		2877.5		1.60	2880
43	43 Total Tetra-Furans				0.915	10.004	23.610		0.000		616.98		0.478	641
44	44 1st Func. Penta-Furans				0.959	10.004	27.090		0.000		70.501		0.104	70.5
45	45 Total Penta-Furans				0.959	10.004	29.275		0.000		692.72		0.250	713
46	46 Total Hexa-Furans				1.09	10.004	33.555		0.000		845.61		0.246	846
47	47 Total Hepta-Furans				1.05	10.004	37.835		0.000		930.93		0.512	931

Work Order 1903654

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Dataset:

Thursday, March 19, 2020 4:50:03 PM Pacific Daylight Time Thursday, March 19, 2020 4:50:24 PM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R2_8, Date: 19-Mar-2020, Time: 09:05:12, ID: 1903654-11RE3 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

Tetra-Dioxins

A CONTRACT	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.59	1.361e5	1.850e5	1.263e4	1.675e4	0.75	NO	2.938e4	7.7735	7.7735	0.242
2	Total Tetra-Dioxins	21.99	2.713e4	3.557e4	3.069e3	4.084e3	0.75	NO	7.153e3	1.8925	1.8925	0.242
3	Total Tetra-Dioxins	22.46	1.794e4	2.250e4	1.141e3	1.348e3	0.85	NO	2.490e3	0.65878	0.65878	0.242
4	Total Tetra-Dioxins	23.42	7.066e3	1.014e4	7.349e2	8.535e2	0.86	NO	1.588e3	0.42028	0.42028	0.242
5	Total Tetra-Dioxins	23.74	2.335e4	3.030e4	2.905e3	3.773e3	0.77	NO	6.678e3	1.7670	1.7670	0.242
6	Total Tetra-Dioxins	23.94	3.379e4	3.979e4	2.612e3	3.317e3	0.79	NO	5.929e3	1.5686	1.5686	0.242
7	Total Tetra-Dioxins	24.16	8.711e3	1.245e4	9.090e2	1.129e3	0.80	NO	2.038e3	0.53930	0.53930	0.242
8	Total Tetra-Dioxins	24.49	6.518e3	1.066e4	6.077e2	8.497e2	0.72	NO	1.457e3	0.38562	0.38562	0.242
9	Total Tetra-Dioxins	24.67	1.783e4	1.741e4	1.140e3	1.350e3	0.84	NO	2.490e3	0.65884	0.65884	0.242
10	Total Tetra-Dioxins	25.11	1.239e4	2.097e4	1.055e3	1.317e3	0.80	NO	2.372e3	0.62757	0.62757	0.242
11	Total Tetra-Dioxins	25.26	6.681e3	7.815e3	4.175e2	5.799e2	0.72	NO	9.974e2	0.26389	0.26389	0.242
12	Total Tetra-Dioxins	25.56	4.780e4	5.528e4	4.695e3	5.460e3	0.86	NO	1.016e4	2.6871	2.6871	0.242
13	Total Tetra-Dioxins	25.69	7.612e3	8.220e3	5.211e2	6.490e2	0.80	NO	1.170e3	0.30960	0.30960	0.242
14	2,3,7,8-TCDD	25.87	4.866e4	6.675e4	3.646e3	4.847e3	0.75	NO	8.493e3	2.2471	2.2471	0.242
15	Total Tetra-Dioxins	26.23	2.259e4	3.338e4	1.622e3	1.868e3	0.87	NO	3.491e3	0.92363	0.92363	0.242

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Last Altered: Printed:

Thursday, March 19, 2020 4:50:03 PM Pacific Daylight Time Thursday, March 19, 2020 4:50:24 PM Pacific Daylight Time

Name: 200318R2_8, Date: 19-Mar-2020, Time: 09:05:12, ID: 1903654-11RE3 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

Penta-Dioxins

120	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.79	1.361e5	2.199e5	1.032e4	1.721e4	0.60	NO	2.752e4	9.0336	9.0336	0.318
2	Total Penta-Dioxins	29.28	5.448e4	7.235e4	2.919e3	4.293e3	0.68	NO	7.212e3	2.3672	2.3672	0.318
3	Total Penta-Dioxins	29.81	1.063e5	1.901e5	6.853e3	1.058e4	0.65	NO	1.744e4	5.7231	5.7231	0.318
4	Total Penta-Dioxins	29.98	6.007e4	1.121e5	3.223e3	5.641e3	0.57	NO	8.864e3	2.9092	2.9092	0.318
5	Total Penta-Dioxins	30.07	4.266e4	6.844e4	2.378e3	4.192e3	0.57	NO	6.570e3	2.1565	2.1565	0.318
6	Total Penta-Dioxins	30.30	6.530e4	1.073e5	6.201e3	9.874e3	0.63	NO	1.607e4	5.2758	5.2758	0.318
7	Total Penta-Dioxins	30.65	2.074e4	3.150e4	1.114e3	1.818e3	0.61	NO	2.932e3	0.96246	0.96246	0.318
8	Total Penta-Dioxins	30.80	8.357e3	1.442e4	3.655e2	3.716e2	0.98	YES	0.000e0	0.00000	0.19881	0.318
9	1,2,3,7,8-PeCDD	31.09	7.966e4	1.207e5	4.013e3	6.307e3	0.64	NO	1.032e4	3.3871	3.3871	0.318
10	Total Penta-Dioxins	31.16	3.031e4	4.843e4	1.644e3	2.325e3	0.71	NO	3.969e3	1.3028	1.3028	0.318
11	Total Penta-Dioxins	31.48	2.583e4	3.895e4	1.398e3	2.044e3	0.68	NO	3.442e3	1.1297	1.1297	0.318

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	33.02	3.972e6	3.100e6	1.788e5	1.447e5	1.24	NO	3.235e5	112.86	112.86	0.353
2	Total Hexa-Dioxins	33.58	4.588e5	3.646e5	2.132e4	1.684e4	1.27	NO	3.815e4	13.309	13.309	0.353
3	Total Hexa-Dioxins	33.82	3.137e6	2.527e6	1.894e5	1.527e5	1.24	NO	3.421e5	119.33	119.33	0.353
4	Total Hexa-Dioxins	33.93	1.453e5	1.025e5	6.360e3	5.607e3	1.13	NO	1.197e4	4.1747	4.1747	0.353
5	1,2,3,4,7,8-HxCDD	34.49	1.258e5	9.984e4	6.381e3	5.215e3	1.22	NO	1.160e4	3.8611	3.8611	0.325
6	1,2,3,6,7,8-HxCDD	34.59	8.533e5	6.872e5	4.631e4	3.837e4	1.21	NO	8.468e4	29.449	29.449	0.355
7	Total Hexa-Dioxins	34.76	1.748e5	1.384e5	9.107e3	7.626e3	1.19	NO	1.673e4	5.8371	5.8371	0.353
8	1,2,3,7,8,9-HxCDD	34.85	3.153e5	2.592e5	1.809e4	1.476e4	1.23	NO	3.285e4	10.736	10.736	0.340

Hepta-Dioxins

P 1/3	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.27	3.114e7	3.057e7	2.276e6	2.211e6	1.03	NO	4.487e6	1559.9	1559.9	1.60
2	1,2,3,4,6,7,8-HpCDD	38.28	2.470e7	2.397e7	1.929e6	1.861e6	1.04	NO	3.790e6	1317.6	1317.6	1.60

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Last Altered: Printed: Thursday, March 19, 2020 4:50:03 PM Pacific Daylight Time Thursday, March 19, 2020 4:50:24 PM Pacific Daylight Time

Name: 200318R2_8, Date: 19-Mar-2020, Time: 09:05:12, ID: 1903654-11RE3 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.52	3.029e4	3.743e4	2.743e3	3.279e3	0.84	NO	6.023e3	1.3813	1.3813	0.478
2	Total Tetra-Furans	20.05	7.391e4	1.018e5	6.353e3	8.253e3	0.77	NO	1.461e4	3.3498	3.3498	0.478
3	Total Tetra-Furans	20.63	2.132e6	2.835e6	2.016e5	2.643e5	0.76	NO	4.660e5	106.87	106.87	0.478
4	Total Tetra-Furans	21.20	1.001e5	1.451e5	1.498e4	2.027e4	0.74	NO	3.525e4	8.0841	8.0841	0.478
5	Total Tetra-Furans	21.56	6.665e5	8.655e5	7.585e4	1.005e5	0.75	NO	1.763e5	40.437	40.437	0.478
6	Total Tetra-Furans	21.99	2.095e5	2.965e5	2.399e4	3.283e4	0.73	NO	5.682e4	13.031	13.031	0.478
7	Total Tetra-Furans	22.11	2.966e4	3.880e4	2.851e3	4.148e3	0.69	NO	6.998e3	1.6051	1.6051	0.478
8	Total Tetra-Furans	22.40	2.303e5	3.073e5	1.308e4	1.664e4	0.79	NO	2.972e4	6.8161	6.8161	0.478
9	Total Tetra-Furans	22.77	2.467e4	4.343e4	2.700e3	3.826e3	0.71	NO	6.526e3	1.4967	1.4967	0.478
10	Total Tetra-Furans	22.92	3.119e4	3.848e4	2.287e3	2.890e3	0.79	NO	5.177e3	1.1874	1.1874	0.478
11	Total Tetra-Furans	23.15	2.747e5	3.557e5	2.019e4	2.650e4	0.76	NO	4.668e4	10.707	10.707	0.478
12	Total Tetra-Furans	23.22	5.165e5	7.032e5	5.752e4	7.579e4	0.76	NO	1.333e5	30.573	30.573	0.478
13	Total Tetra-Furans	23.82	3.703e6	4.825e6	3.125e5	4.109e5	0.76	NO	7.234e5	165.92	165.92	0.478
14	Total Tetra-Furans	24.12	1.131e5	1.608e5	1.046e4	1.422e4	0.74	NO	2.468e4	5.6613	5.6613	0.478
15	Total Tetra-Furans	24.36	3.309e4	5.150e4	3.167e3	4.427e3	0.72	NO	7.594e3	1.7417	1.7417	0.478
16	Total Tetra-Furans	24.61	5.204e4	5.748e4	3.642e3	4.542e3	0.80	NO	8.184e3	1.8771	1.8771	0.478
17	Total Tetra-Furans	24.75	5.968e5	8.031e5	4.333e4	5.659e4	0.77	NO	9.992e4	22.917	22.917	0.478
18	2.3,7,8-TCDF	24.88	3.660e6	4.846e6	3.382e5	4.432e5	0.76	NO	7.814e5	179.21	179.21	0.478
19	Total Tetra-Furans	25.29	2.078e5	2.897e5	1.662e4	2.109e4	0.79	NO	3.771e4	8.6497	8.6497	0.478
20	Total Tetra-Furans	25.56	3.225e4	4.148e4	3.120e3	3.774e3	0.83	NO	6.894e3	1.5812	1.5812	0.478
21	Total Tetra-Furans	26.42	3.668e4	2.213e4	2.743e3	1.686e3	1.63	YES	0.000e0	0.00000	0.68454	0.478
22	Total Tetra-Furans	26.56	7.902e4	9.670e4	7.324e3	7.298e3	1.00	YES	0.000e0	0.00000	2.9628	0.478
23	Total Tetra-Furans	26.74	9.934e4	1.196e5	7.773e3	9.174e3	0.85	NO	1.695e4	3.8866	3.8866	0.478
24	Total Tetra-Furans	27.05	5.903e5	5.858e5	5.061e4	4.927e4	1.03	YES	0.000e0	0.00000	20.000	0.478

Penta-Furans function 1

ł	1000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
ı	1	1st Func. Penta-Furans	27.08	2.564e6	1.639e6	1.813e5	1.150e5	1.58	NO	2.963e5	70.501	70.501	0.104

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Dataset:

U:\VG12.PRO\Results\200318R2\200318R2-8.qld

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Name: 200318R2_8, Date: 19-Mar-2020, Time: 09:05:12, ID: 1903654-11RE3 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

Penta-Furans

4-1-1	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.58	1.916e5	1.263e5	1.176e4	7.915e3	1.49	NO	1.968e4	4.6820	4.6820	0.250
2	Total Penta-Furans	28.73	5.466e6	3.435e6	3.634e5	2.305e5	1.58	NO	5.939e5	141.32	141.32	0.250
3	Total Penta-Furans	29.34	7.516e5	4.687e5	4.585e4	2.868e4	1.60	NO	0.000e0	0.00000	17.735	0.250
4	Total Penta-Furans	29.39	1.862e5	1.286e5	7.341e3	4.729e3	1.55	NO	0.000e0	0.00000	2.8722	0.250
5	Total Penta-Furans	29.55	1.384e6	8.437e5	7.577e4	4.696e4	1.61	NO	1.227e5	29.205	29.205	0.250
6	1,2,3,7,8-PeCDF	29.75	1.191e7	7.734e6	6.843e5	4.463e5	1.53	NO	1.131e6	264.57	264.57	0.253
7	Total Penta-Furans	29.86	1.119e5	7.901e4	4.432e3	2.552e3	1.74	NO	6.984e3	1.6620	1.6620	0.250
8	Total Penta-Furans	30.03	4.518e6	2.858e6	2.454e5	1.548e5	1.58	NO	4.003e5	95.247	95.247	0.250
9	Total Penta-Furans	30.67	1.044e5	6.143e4	5.365e3	3.436e3	1.56	NO	8.801e3	2.0942	2.0942	0.250
10	2,3,4,7,8-PeCDF	30.77	6.208e6	3.973e6	3.095e5	1.995e5	1.55	NO	5.090e5	117.79	117.79	0.237
11	Total Penta-Furans	30.80	3.510e6	2.257e6	7.557e4	4.587e4	1.65	NO	1.214e5	28.898	28.898	0.250
12	Total Penta-Furans	31.72	3.058e5	1.943e5	1.887e4	1.160e4	1.63	NO	3.047e4	7.2505	7.2505	0.250

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.47	1.123e5	9.641e4	9.873e3	7.246e3	1.36	NO	1.712e4	4.4555	4.4555	0.246
2	Total Hexa-Furans	32.62	6.802e5	5.922e5	2.509e4	2.060e4	1.22	NO	4.568e4	11.889	11.889	0.246
3	Total Hexa-Furans	32.69	6.258e6	5.076e6	1.870e5	1.516e5	1.23	NO	3.386e5	88.125	88.125	0.246
4	Total Hexa-Furans	32.99	6.692e4	5.819e4	3.100e3	2.670e3	1.16	NO	5.770e3	1.5017	1.5017	0.246
5	Total Hexa-Furans	33.18	4.929e6	4.003e6	2.291e5	1.885e5	1.22	NO	4.175e5	108.67	108.67	0.246
6	Total Hexa-Furans	33.26	4.799e4	4.432e4	2.132e3	1.806e3	1.18	NO	3.938e3	1.0248	1.0248	0.246
7	Total Hexa-Furans	33.39	2.688e4	2.303e4	1.553e3	1.357e3	1.14	NO	2.910e3	0.75749	0.75749	0.246
8	Total Hexa-Furans	33.53	2.167e5	1.894e5	9.795e3	8.103e3	1.21	NO	1.790e4	4.6584	4.6584	0.246
9	1,2,3,4,7,8-HxCDF	33.64	1.755e7	1.429e7	8.611e5	7.076e5	1.22	NO	1.569e6	428.80	428.80	0.236
10	1,2,3,6,7,8-HxCDF	33.75	4.588e6	3.839e6	2.291e5	1.890e5	1.21	NO	4.181e5	112.02	112.02	0.233
11	Total Hexa-Furans	34.01	1.018e5	8.658e4	4.952e3	4.125e3	1.20	NO	9.077e3	2.3625	2.3625	0.246
12	Total Hexa-Furans	34.12	1.491e4	1.385e4	7.171e2	6.578e2	1.09	NO	1.375e3	0.35783	0.35783	0.246
13	Total Hexa-Furans	34.22	5.017e4	3.632e4	2.070e3	1.641e3	1.26	NO	3.711e3	0.96578	0.96578	0.246
14	2,3,4,6,7,8-HxCDF	34.32	1. 147e 6	9.532e5	6.337e4	5.102e4	1.24	NO	1.144e5	29.532	29.53 2	0.263
15	1,2,3,7,8,9-HxCDF	35.23	1.537e6	1.245e6	8.028e4	6.654e4	1.21	NO	1.468e5	43.110	43.110	0.302
16	Total Hexa-Furans	35.25	9.6 4 8e5	7.465e5	1.633e4	1.200e4	1.36	NO	2.833e4	7.3737	7.3737	0.246

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Dataset:

U:\VG12.PRO\Results\200318R2\200318R2-8.qld

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Name: 200318R2_8, Date: 19-Mar-2020, Time: 09:05:12, ID: 1903654-11RE3 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

Hepta-Furans

ALC: U	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.89	6.857e6	6.774e6	4.774e5	4.718e5	1.01	NO	9.492e5	298.58	298.58	0.452
2	Total Hepta-Furans	37.26	1.007e5	1.087e5	6.650e3	7.047e3	0.94	NO	1.370e4	4.8856	4.8856	0.512
3	Total Hepta-Furans	37.46	1.006e7	1.002e7	7.665e5	7.574e5	1.01	NO	1.524e6	543.54	543.54	0.512
4	1,2,3,4,7,8,9-HpCDF	38.93	1.730e6	1.748e6	1.183e5	1.168e5	1.01	NO	2.352e5	83.920	83.920	0.511

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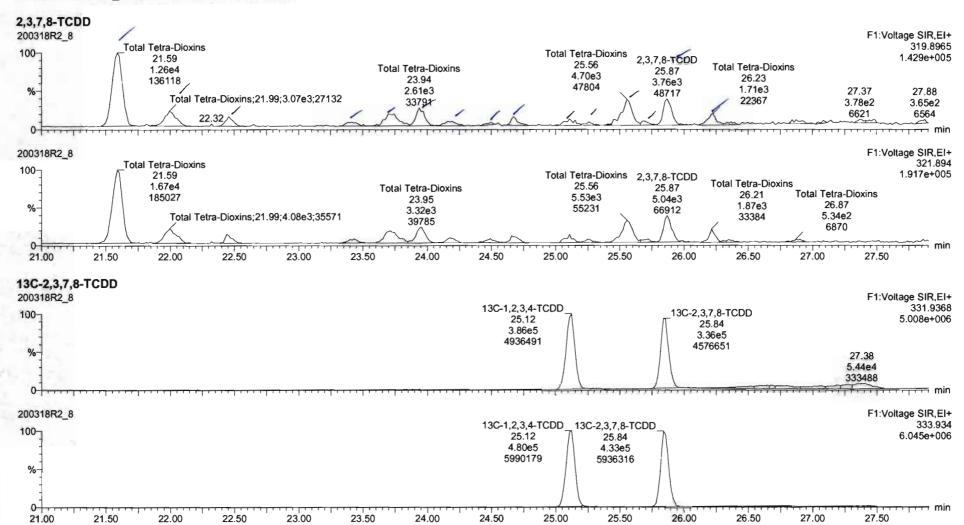
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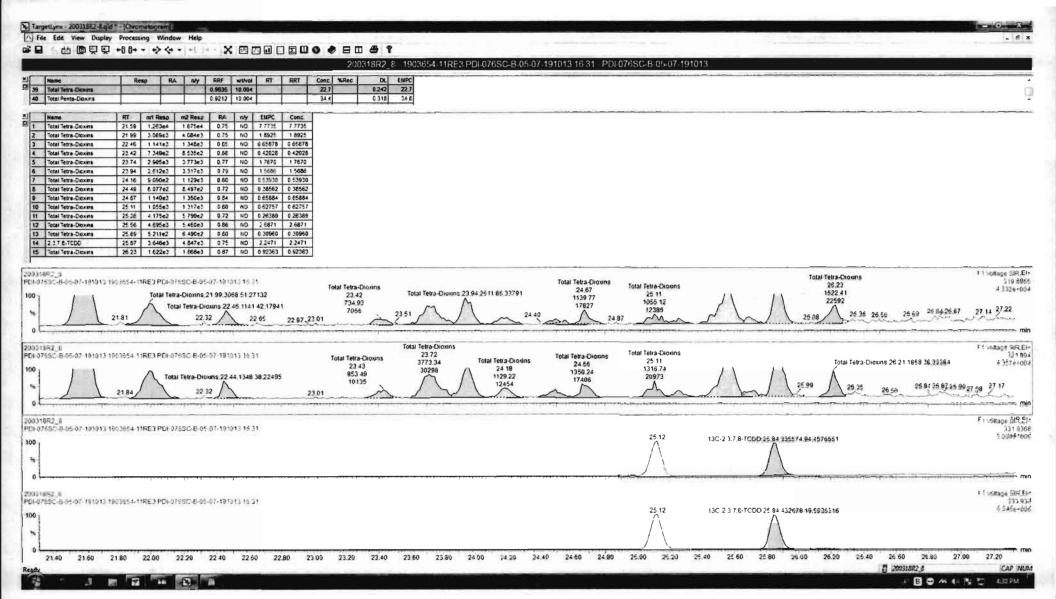
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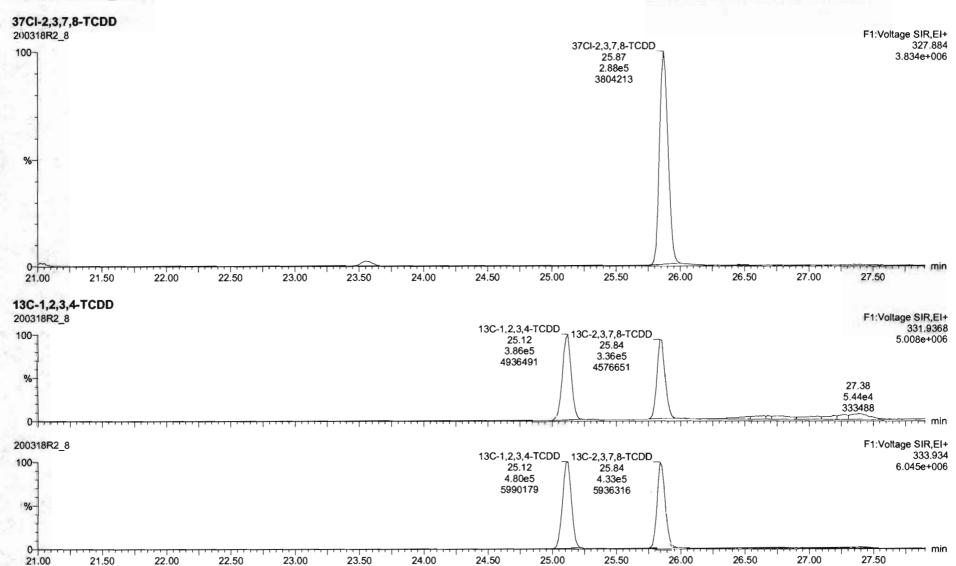




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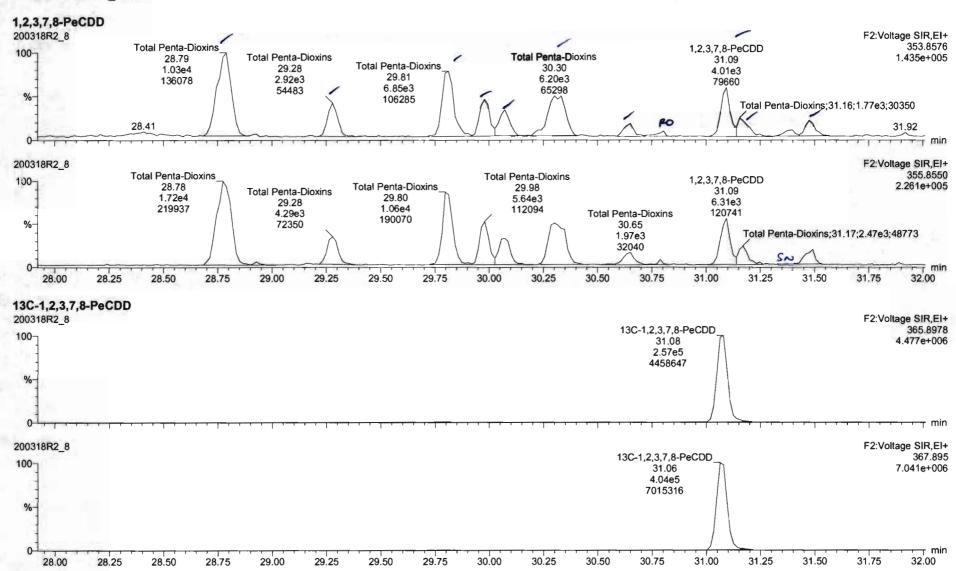
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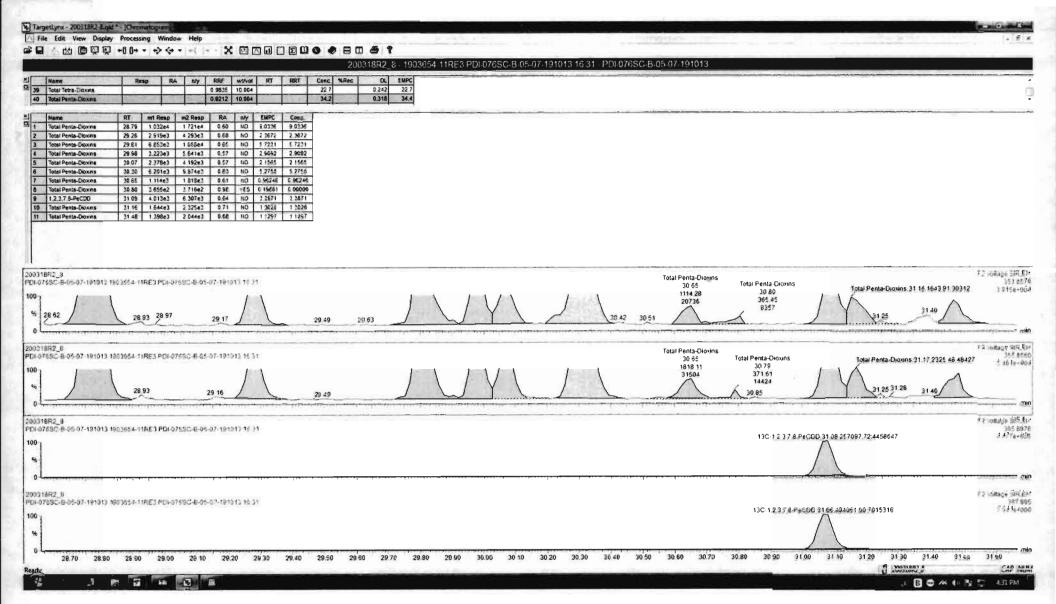


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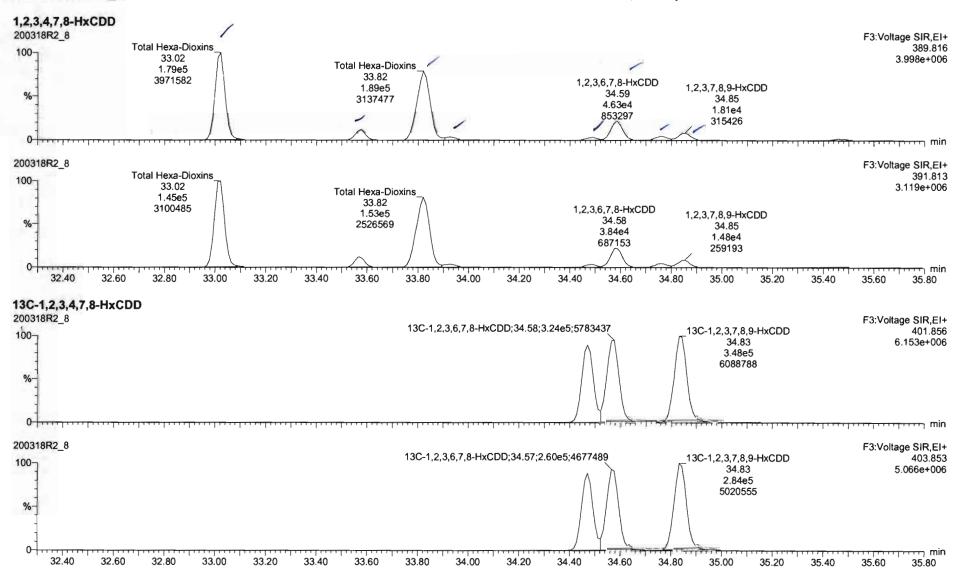


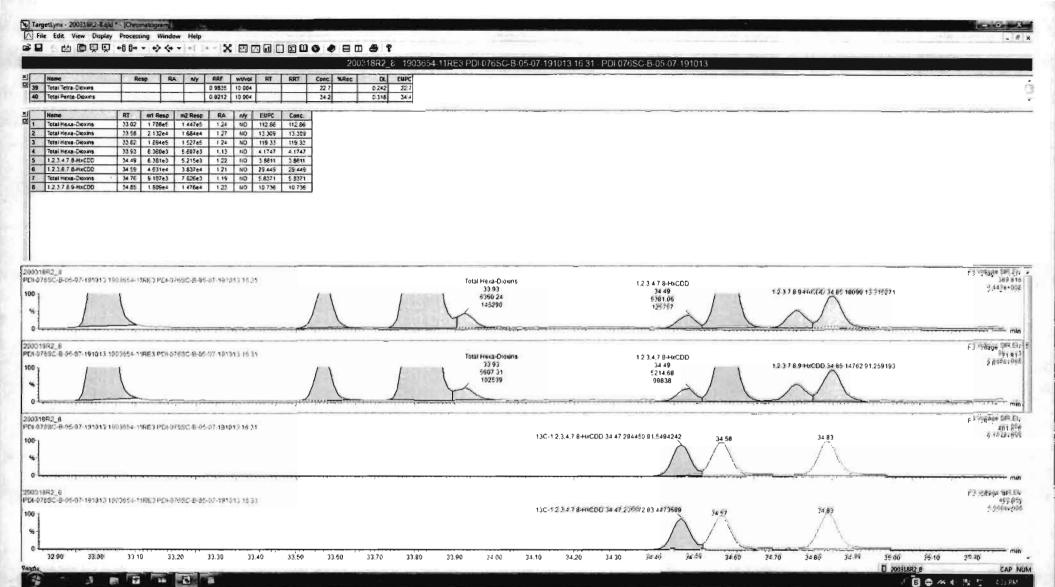
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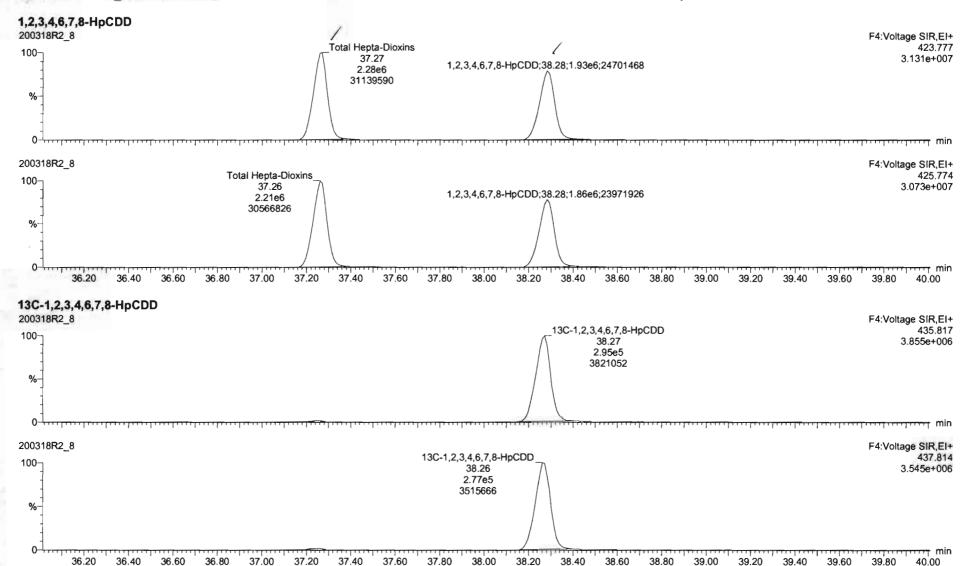
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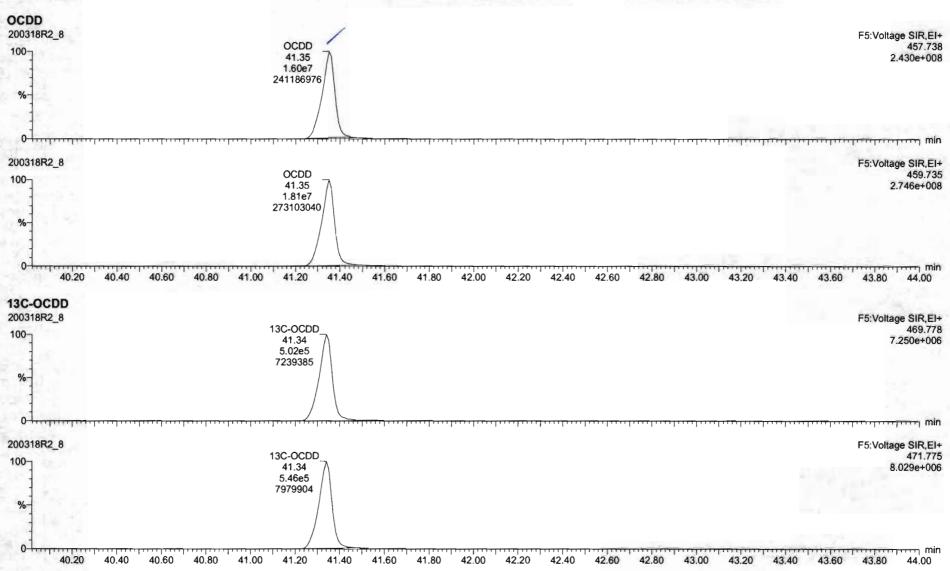
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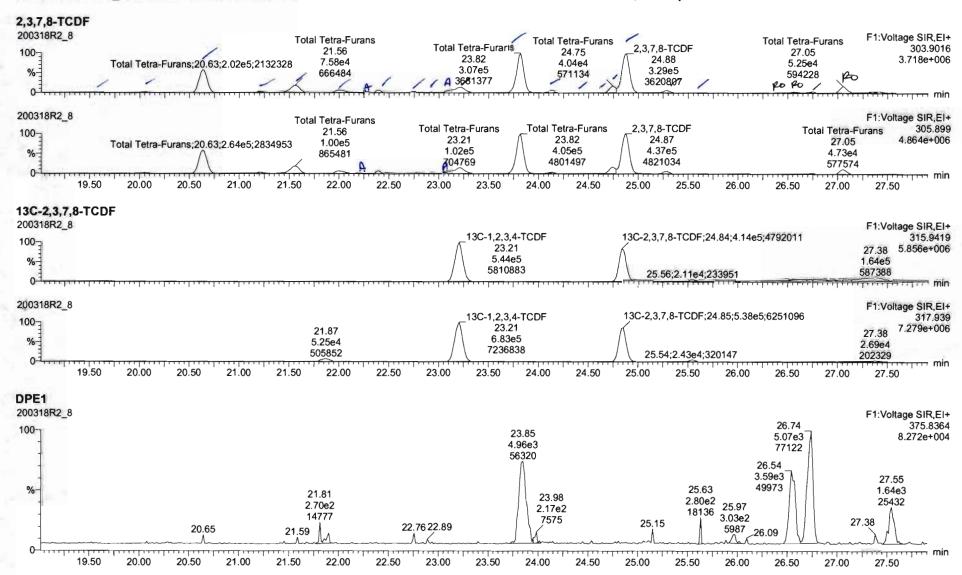
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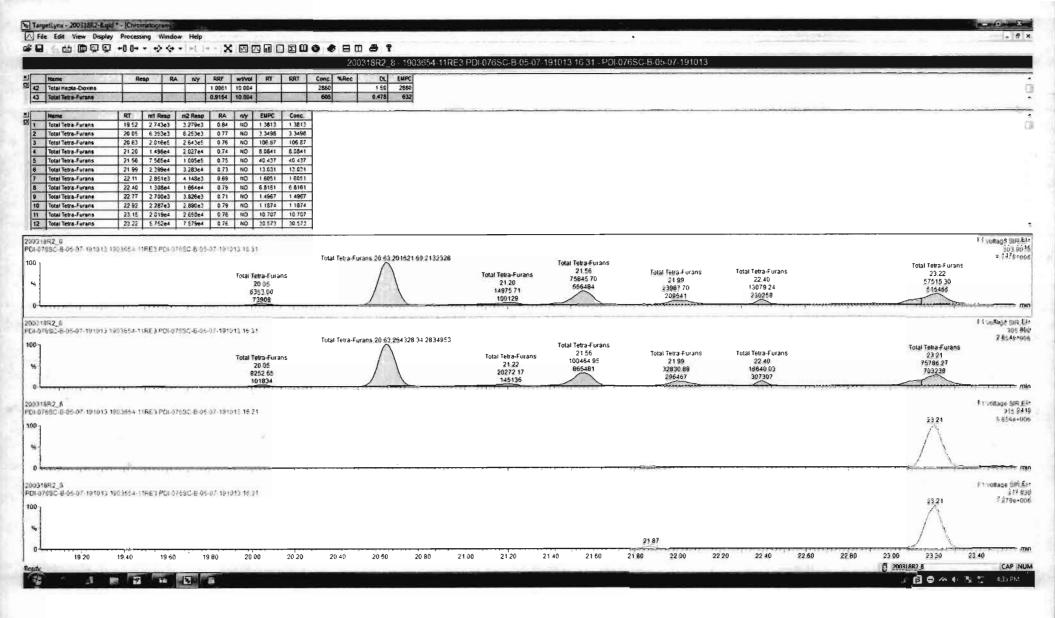
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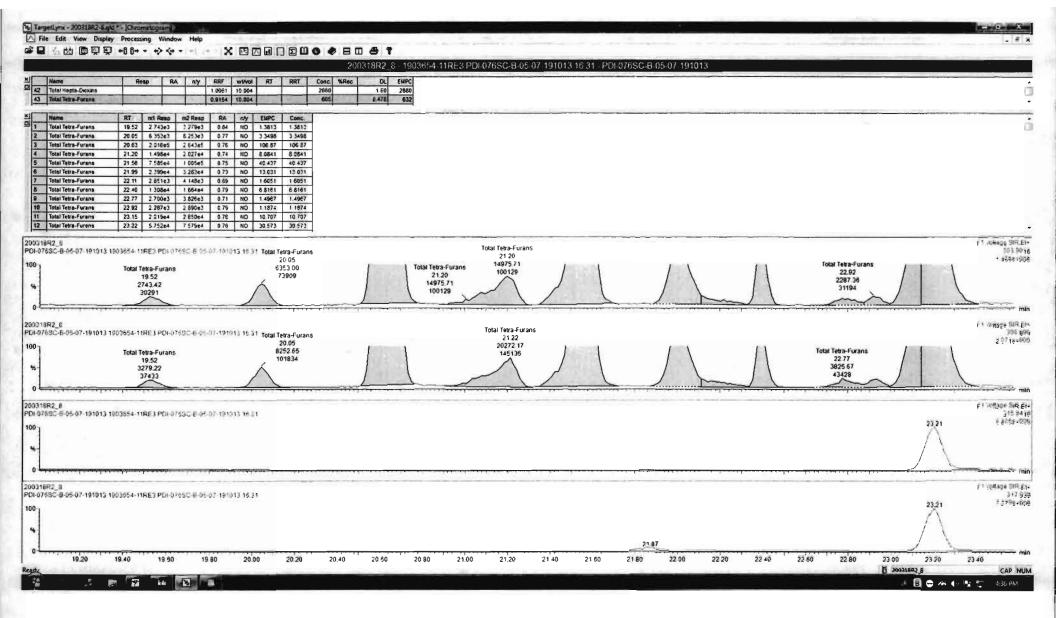


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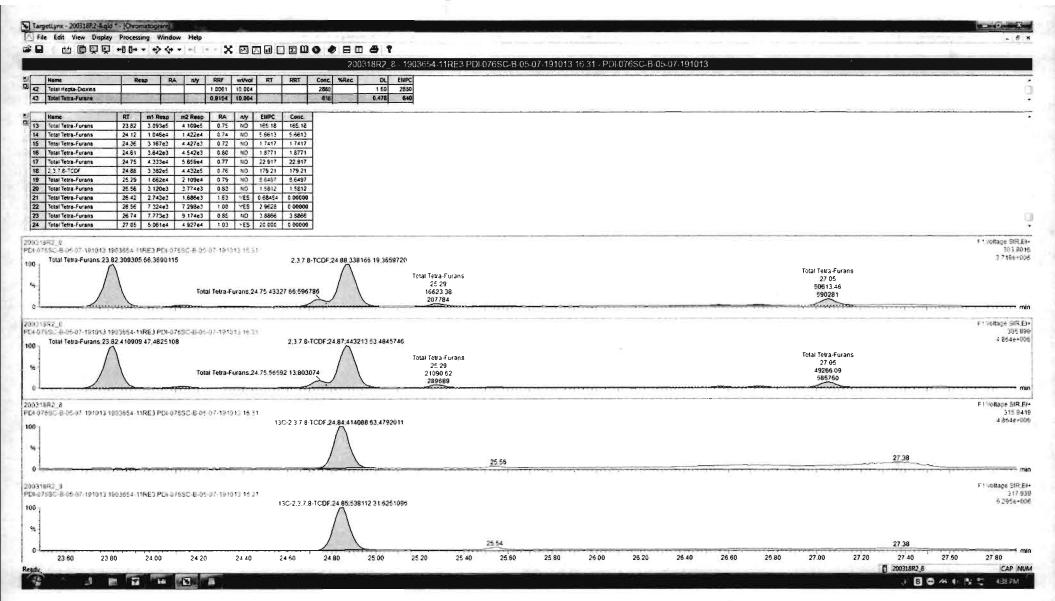
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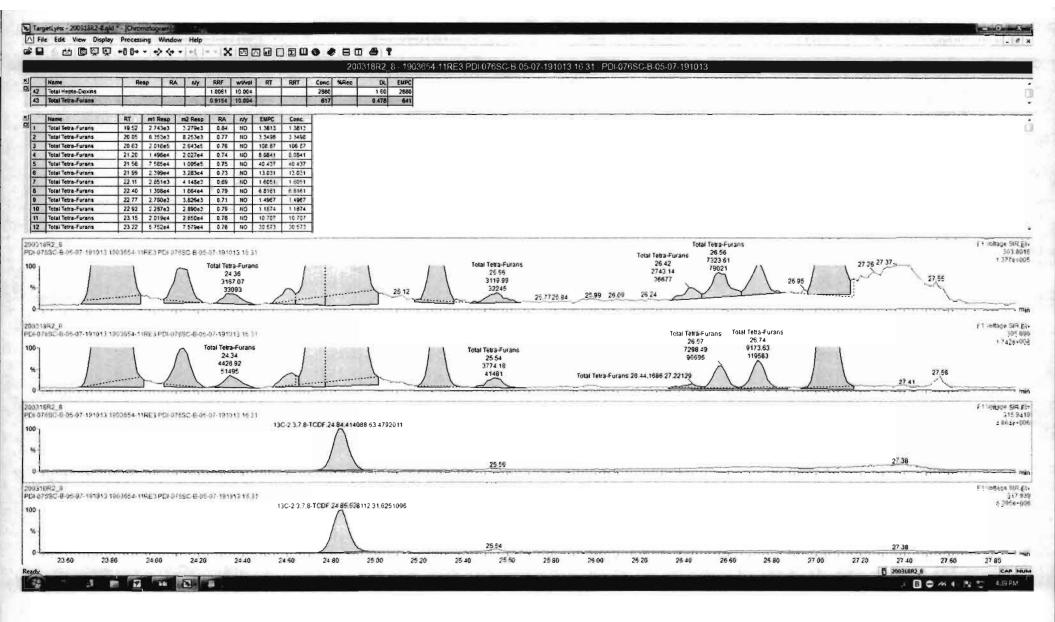




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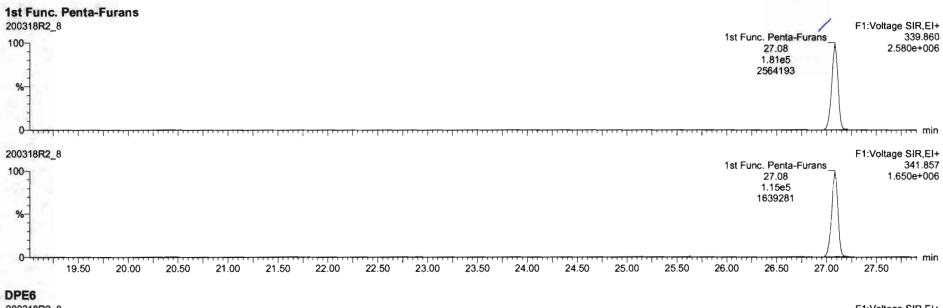
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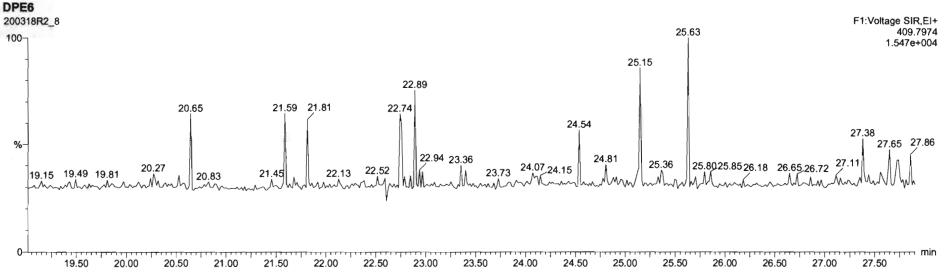


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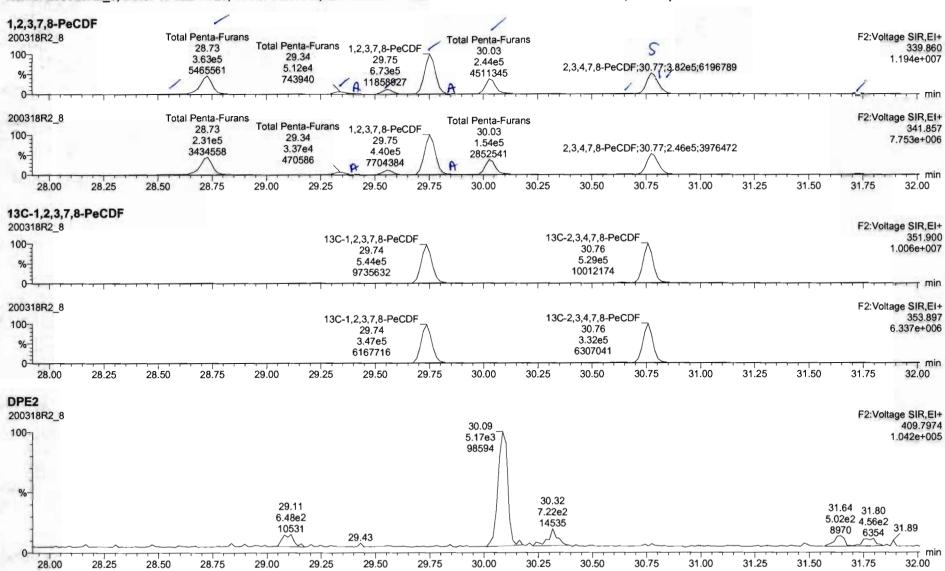
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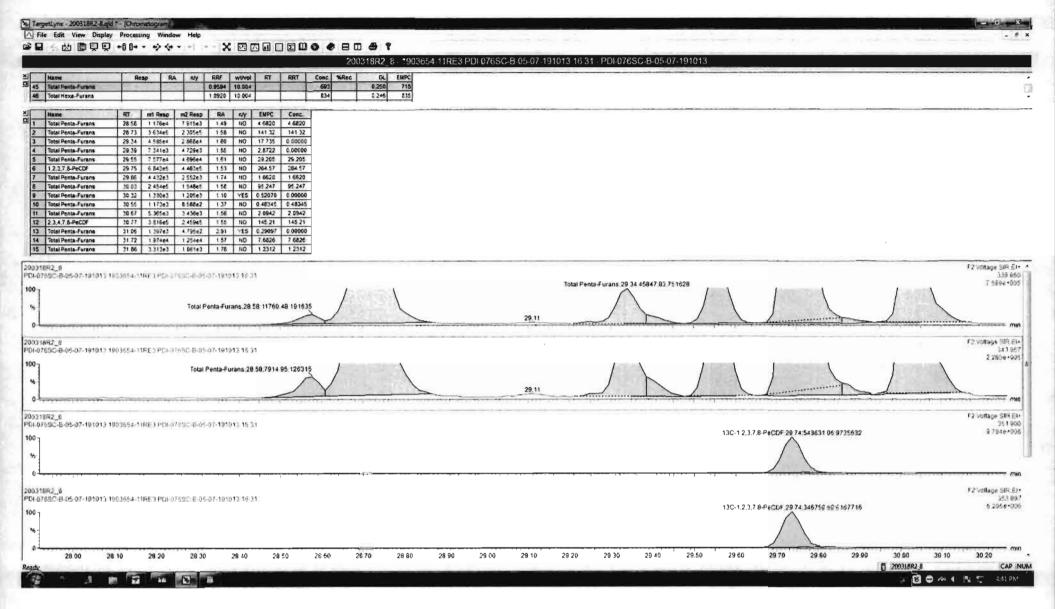




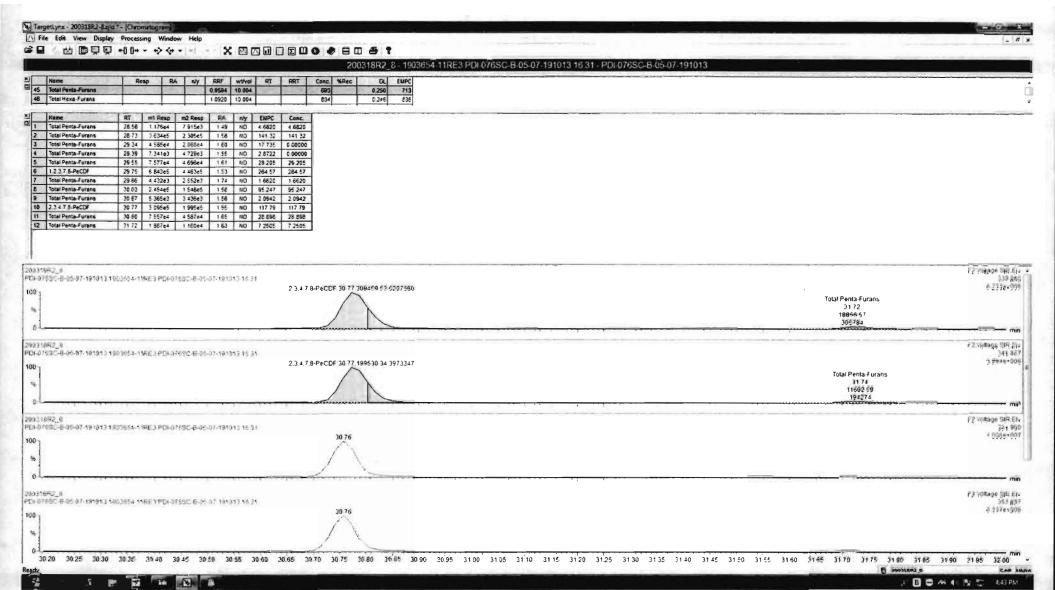
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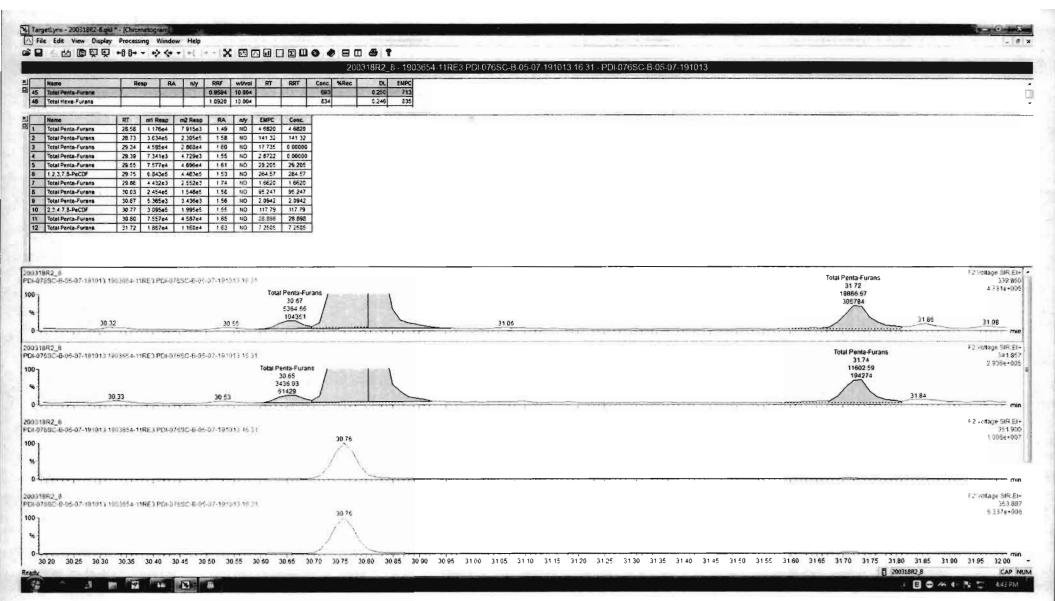
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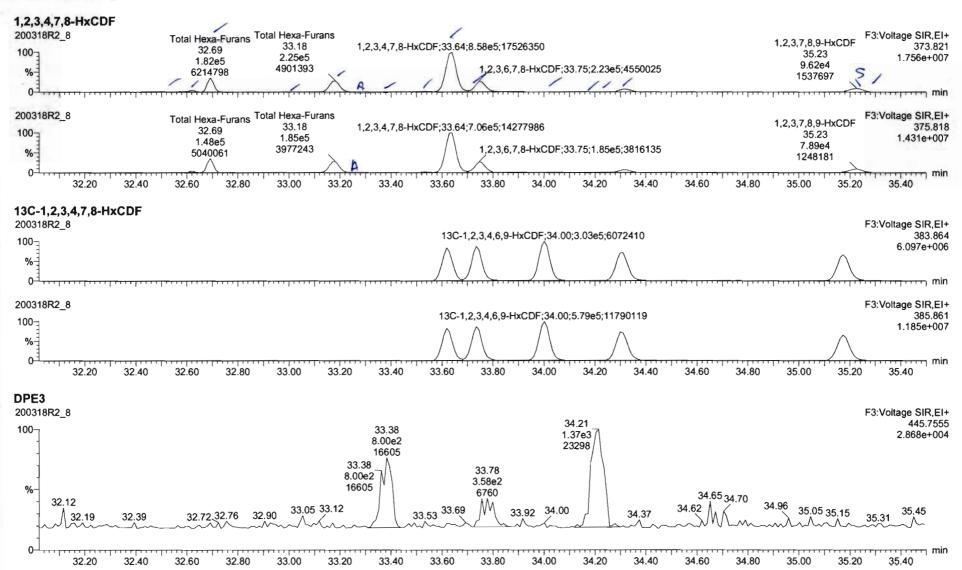


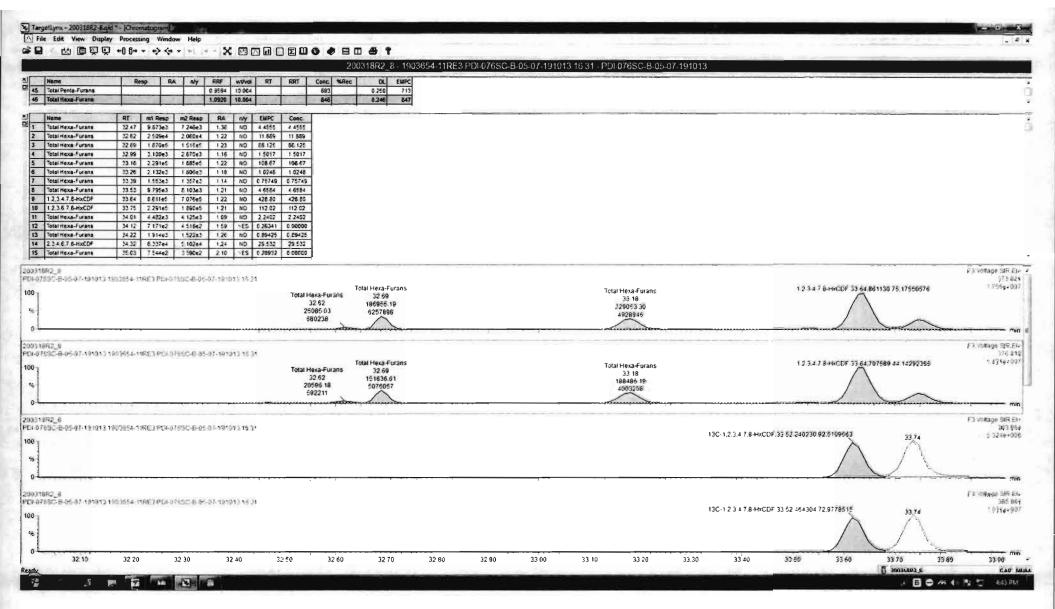


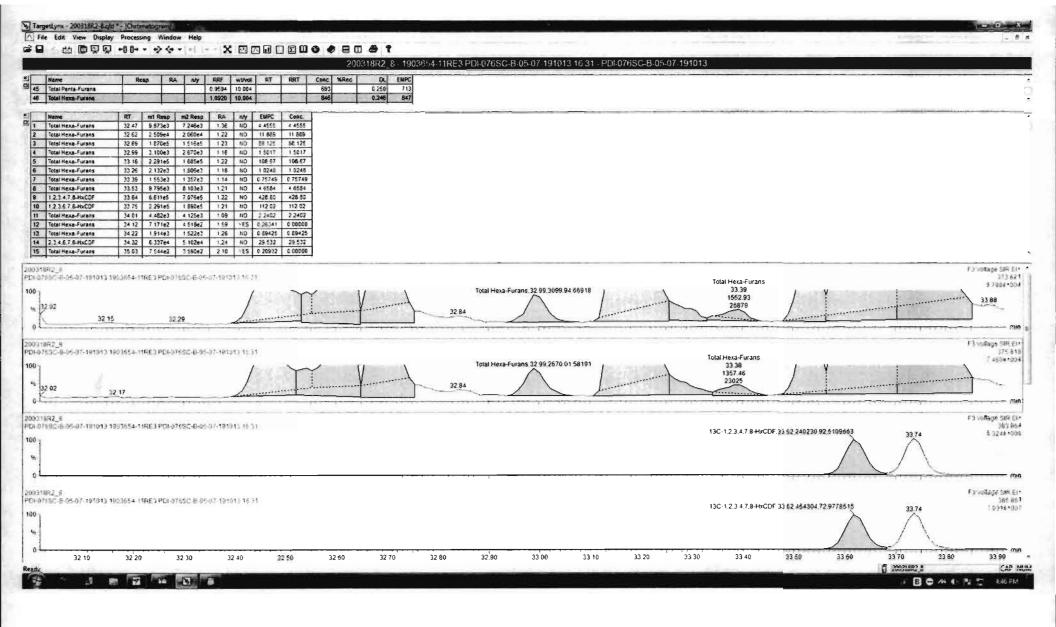
Work Order 1903654 Page 589 of 1184

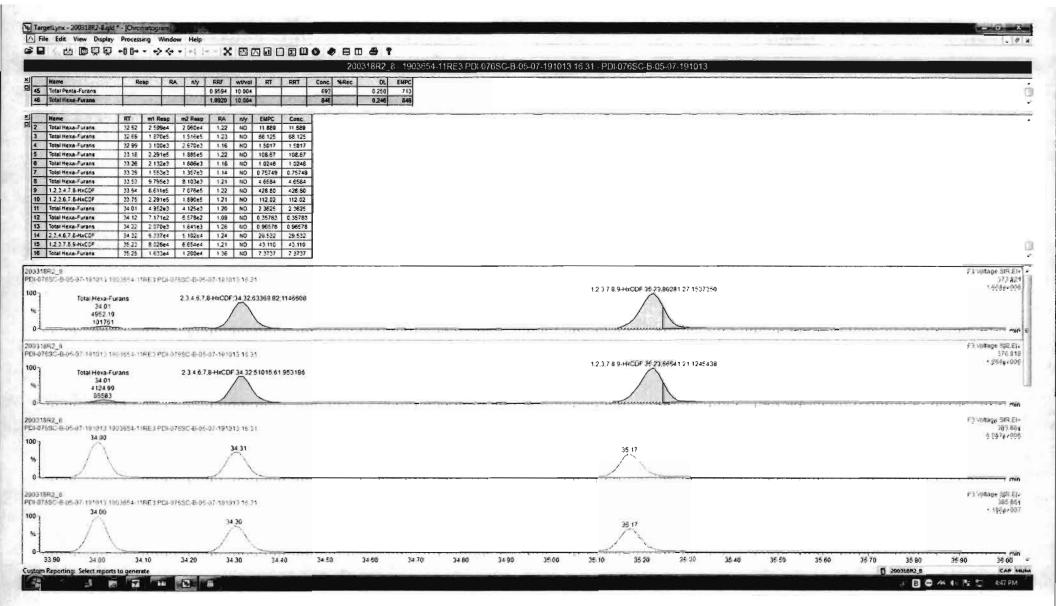
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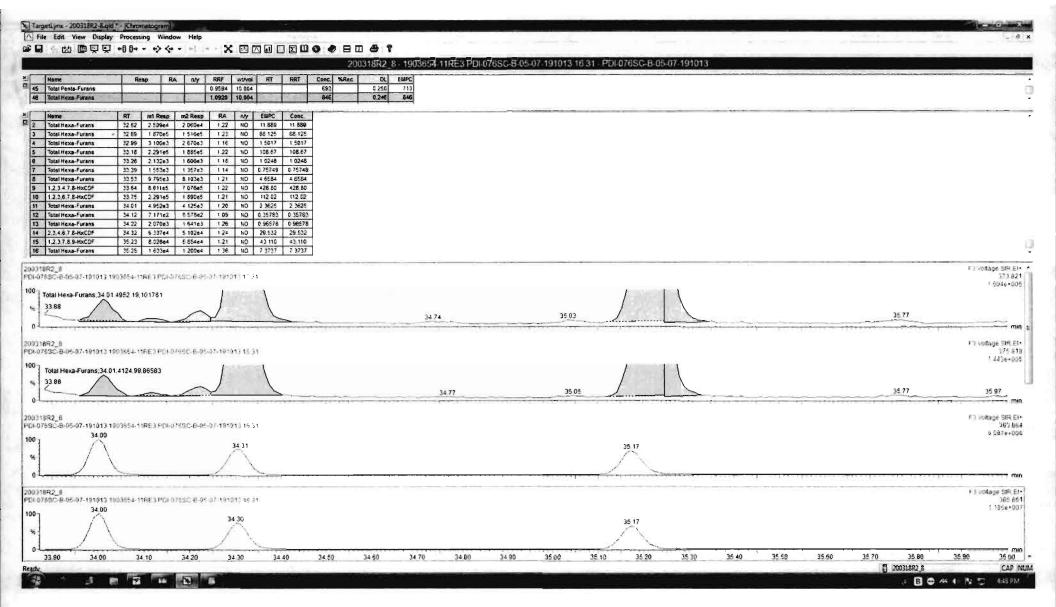
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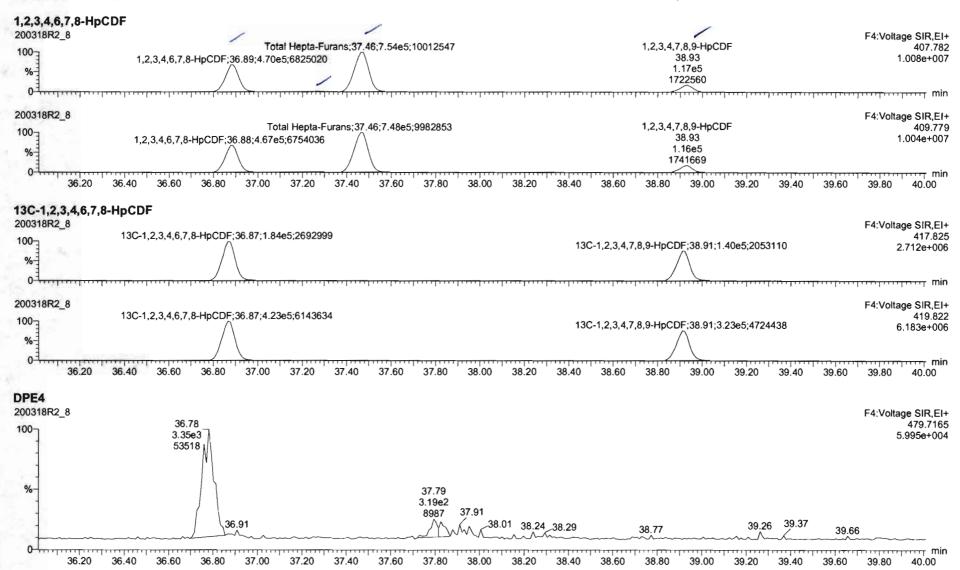


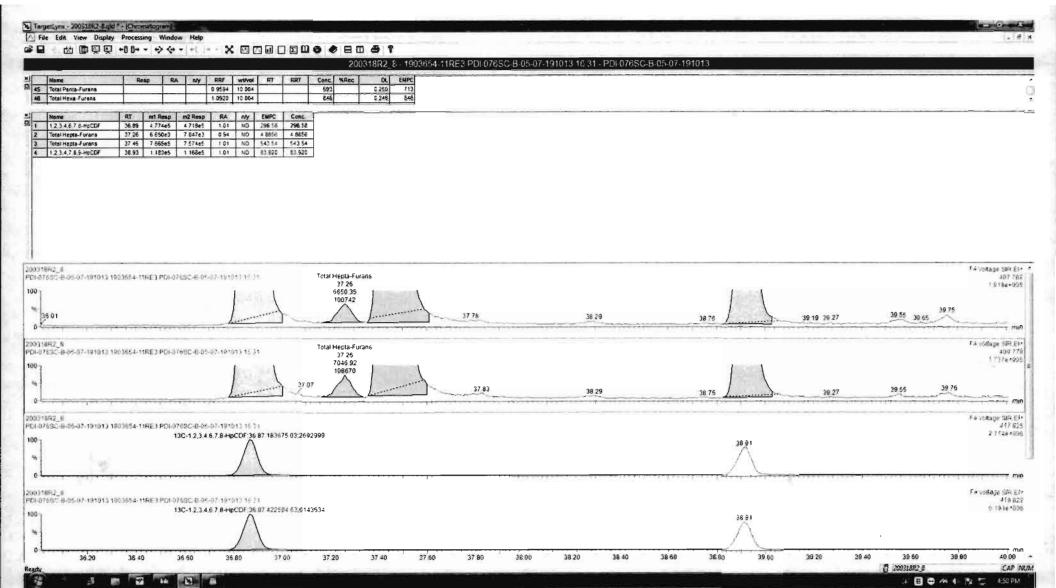


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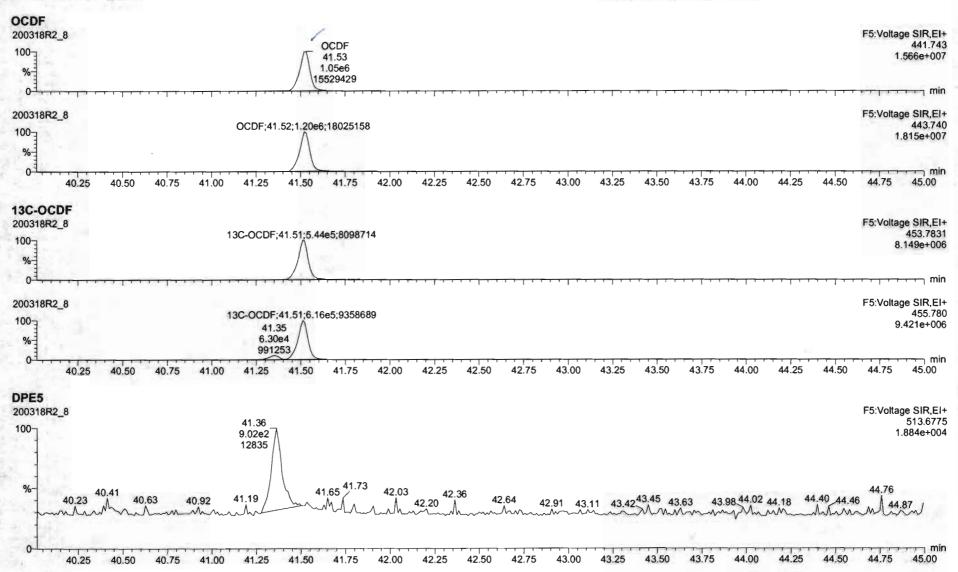
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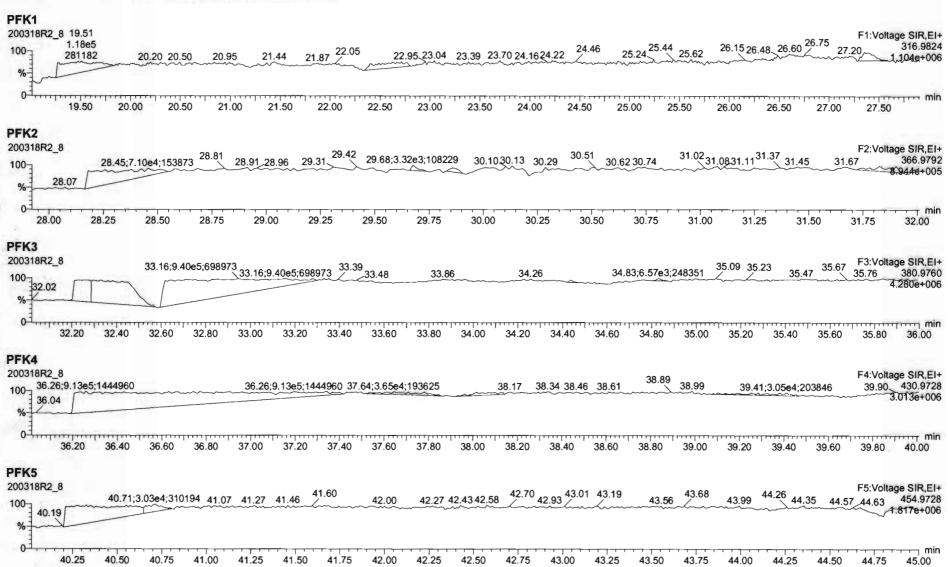
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Dataset:

U:\VG12.PRO\Results\200319R1\200319R1-16.qld

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Printed:

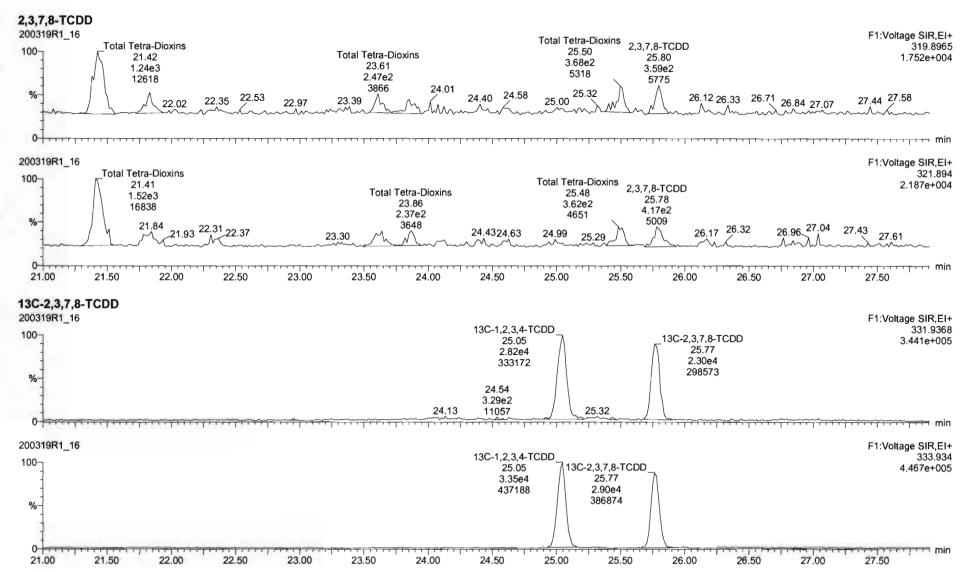
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-6-40-	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	7 OCDD	1.85e6	0.90	NO	1.05	10.004	41.340	41.35	1.000	1.000	13787		5.21	13800
2	24 13C-OCDD	5.09e4	0.91	NO	0.571	10.004	41.458	41.34	1.219	1.216	294.97	73.8	1.88	
3	35 37CI-2,3,7,8-TCDD	2.06e4			1.17	10.004	25.776	25.80	1.029	1.030	56.812	71.0	0.965	
4	36 13C-1,2,3,4-TCDD	6.17e4	0.84	NO	1.00	10.004	25.050	25.05	1.000	1.000	199.91	100	5.04	
5	37 13C-1,2,3,4-TCDF	1.07e5	0.80	NO	1.00	10.004	23.190	23.10	1.000	1.000	199.91	100	5.05	
6	38 13C-1,2,3,4,6,9-HxCDF	6.04e4	0.49	NO	1.00	10.004	33.880	34.00	1.000	1.000	199.91	100	1.27	

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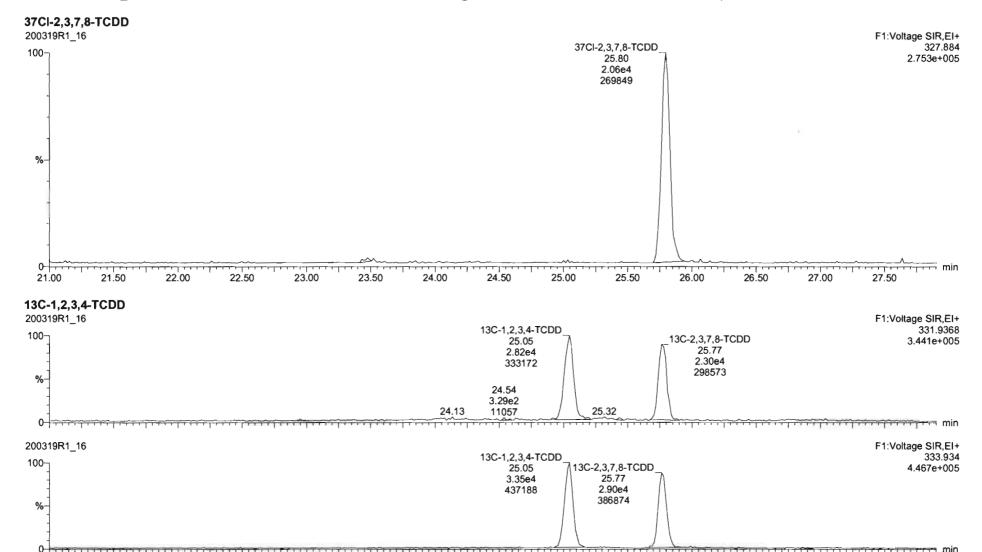
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23.00

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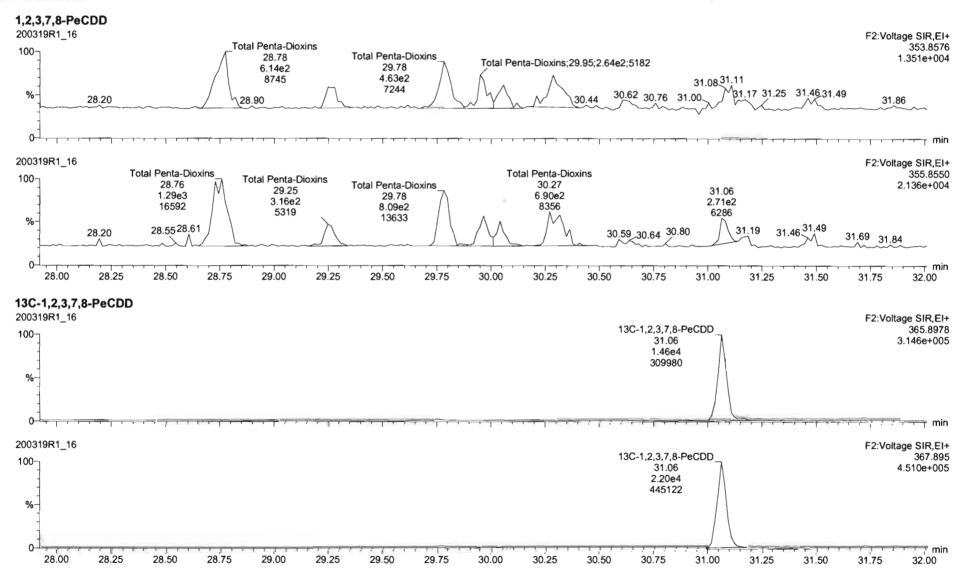
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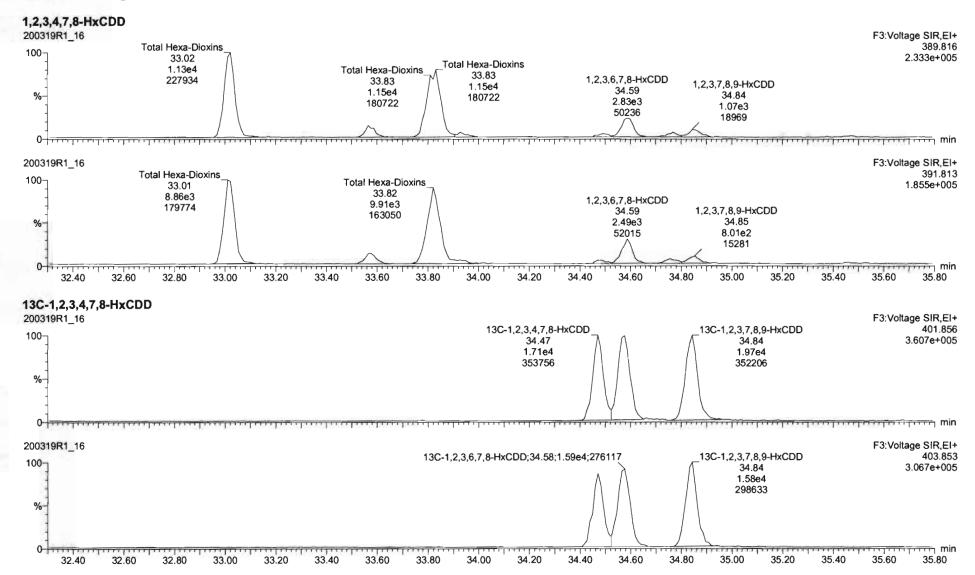
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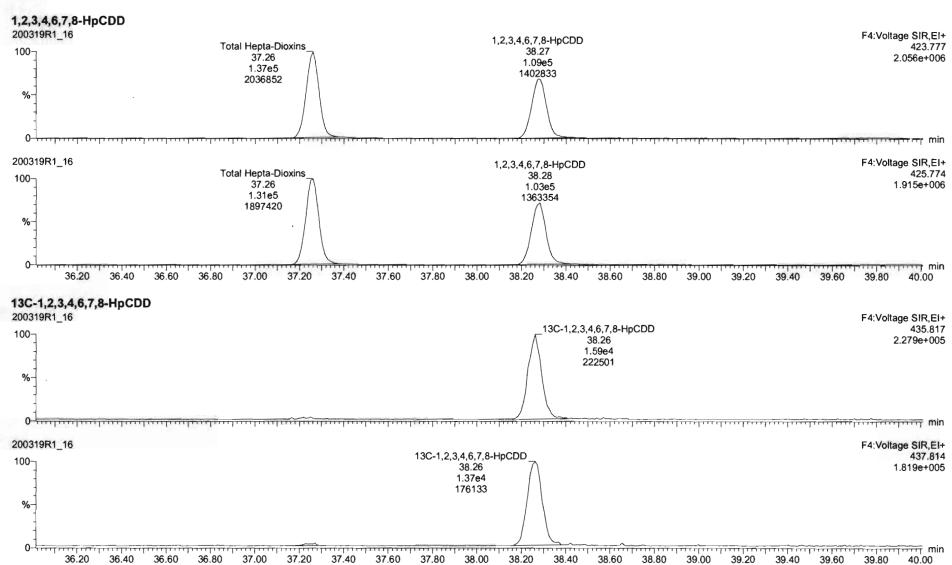


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Friday, March 20, 2020 07:45:25 Pacific Daylight Time

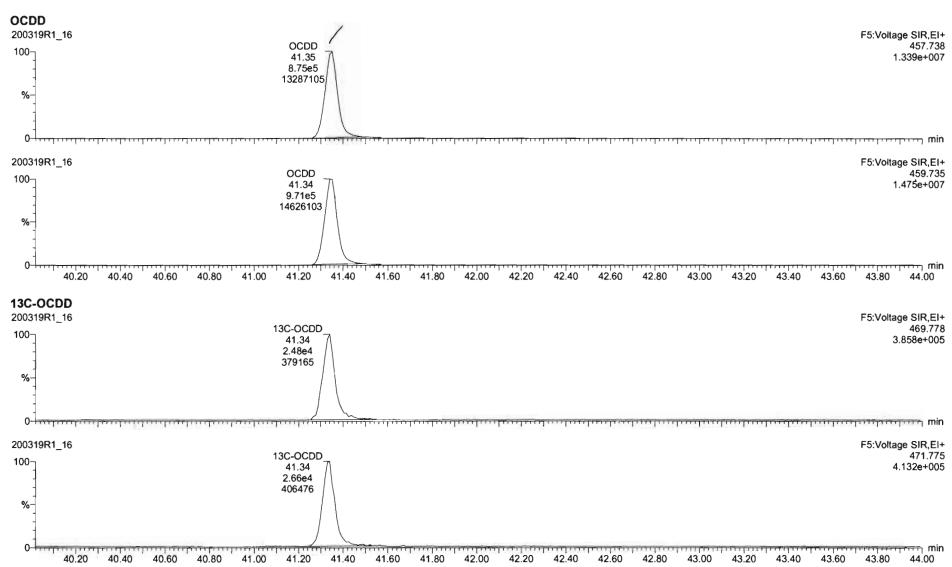
Friday, March 20, 2020 07:47:29 Pacific Daylight Time

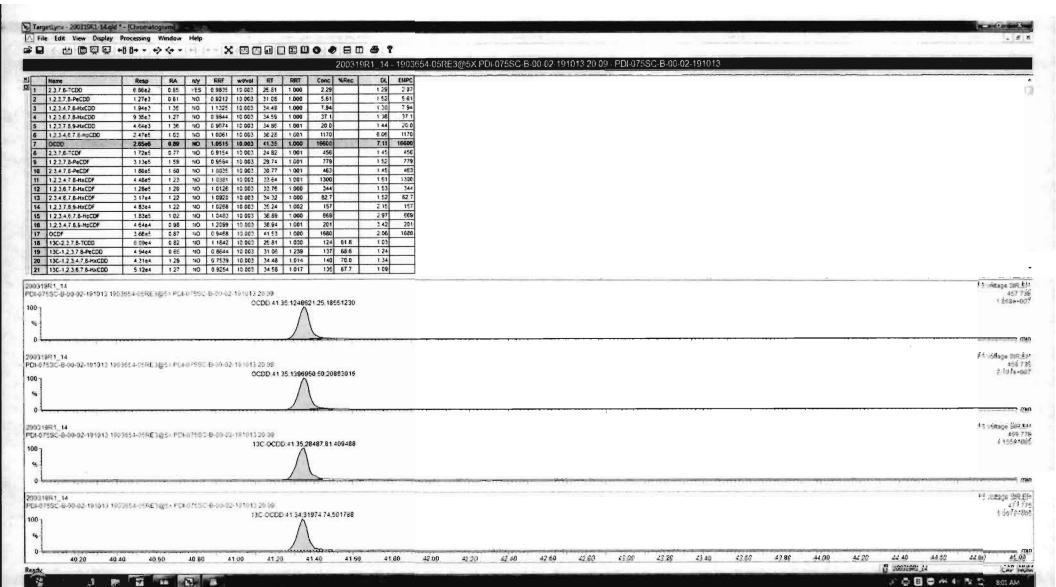


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Last Altered: Printed:

Friday, March 20, 2020 07:45:25 Pacific Daylight Time Friday, March 20, 2020 07:47:29 Pacific Daylight Time

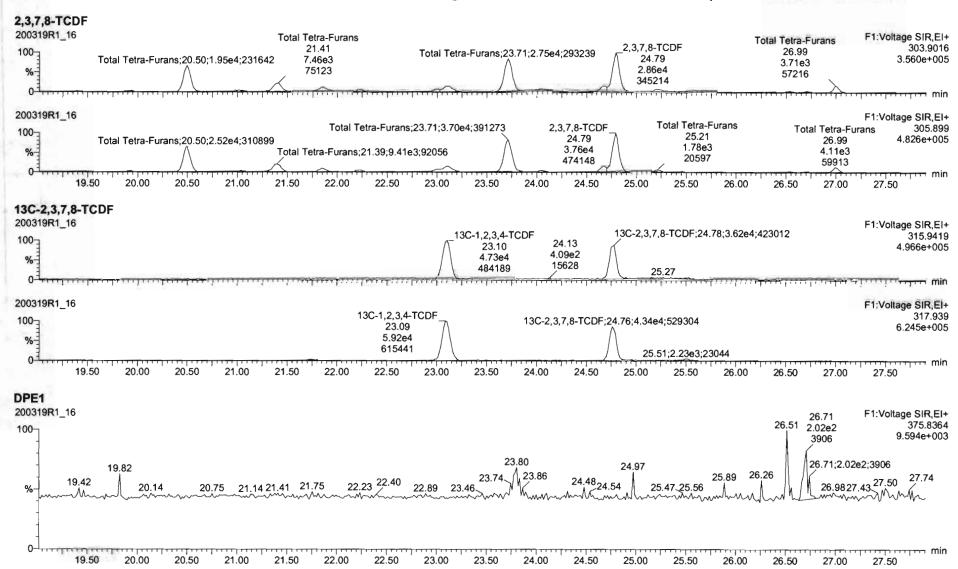




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Untitled

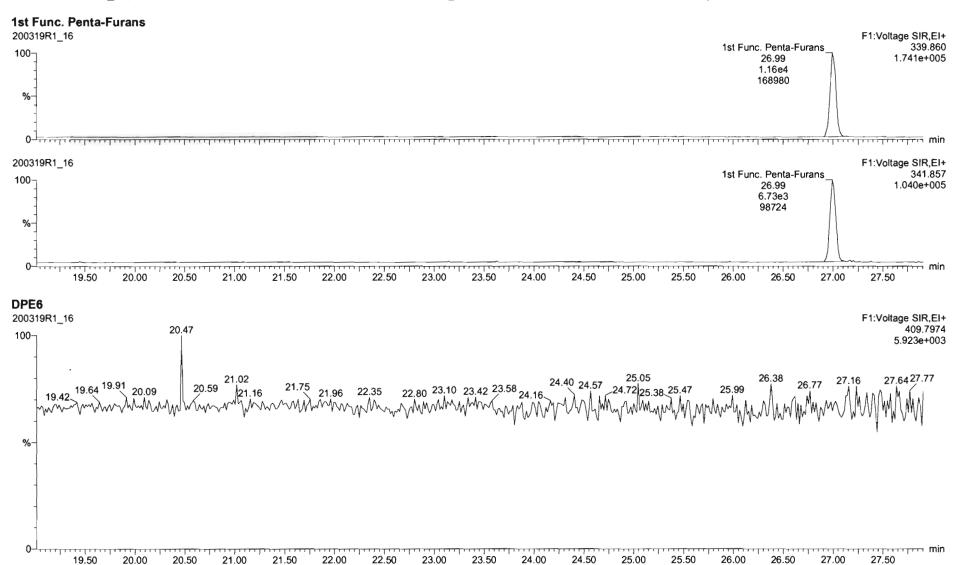
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Last Altered: Printed:

Friday, March 20, 2020 07:45:25 Pacific Daylight Time Friday, March 20, 2020 07:47:29 Pacific Daylight Time



F2:Voltage SIR,EI+

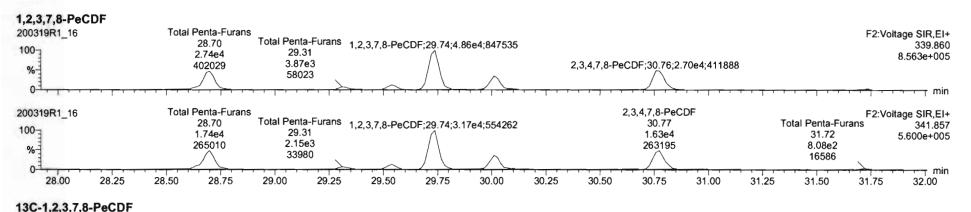
Dataset:

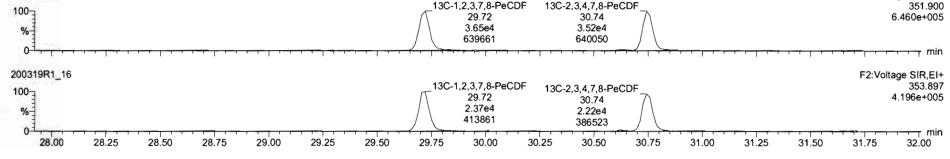
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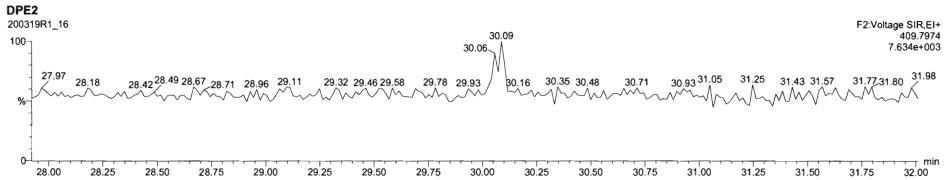
Last Altered: Printed:

200319R1 16

Friday, March 20, 2020 07:45:25 Pacific Daylight Time Friday, March 20, 2020 07:47:29 Pacific Daylight Time

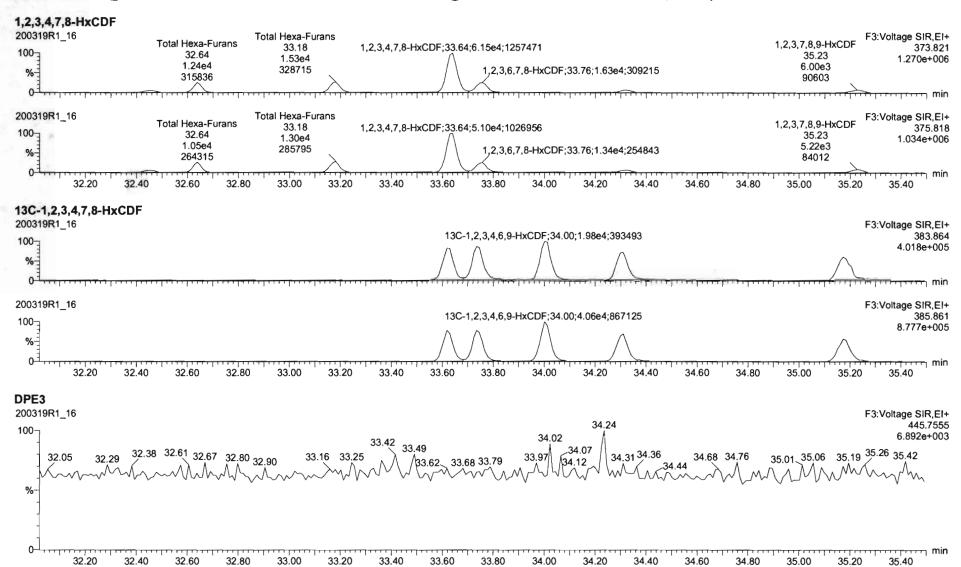






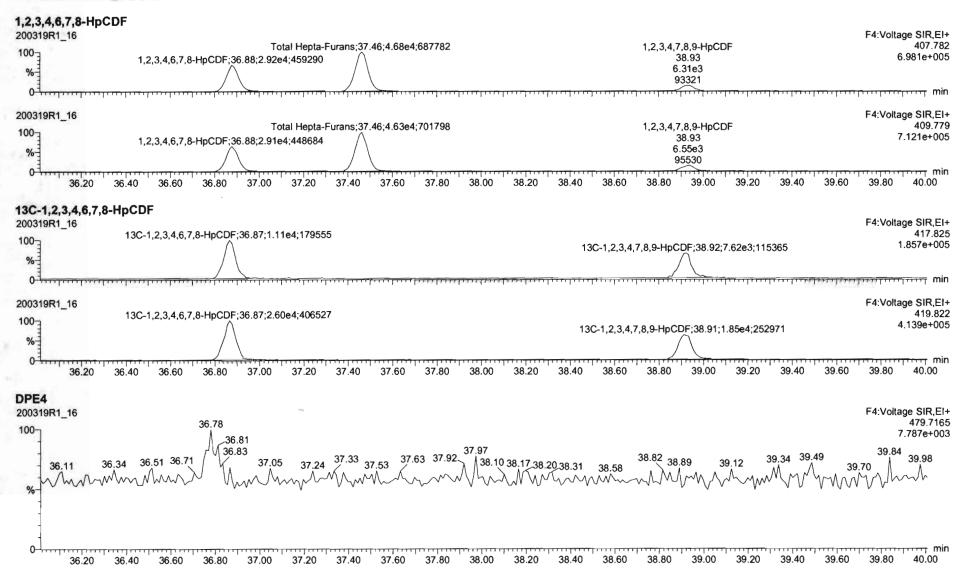
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Last Altered: Printed: Friday, March 20, 2020 07:45:25 Pacific Daylight Time Friday, March 20, 2020 07:47:29 Pacific Daylight Time



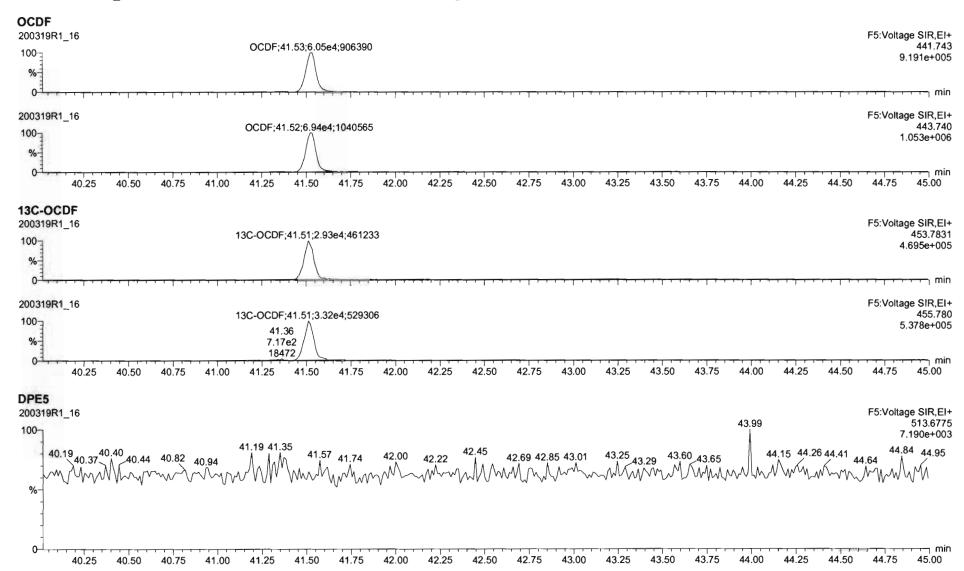
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Untitled

Last Altered: Printed: Friday, March 20, 2020 07:45:25 Pacific Daylight Time Friday, March 20, 2020 07:47:29 Pacific Daylight Time

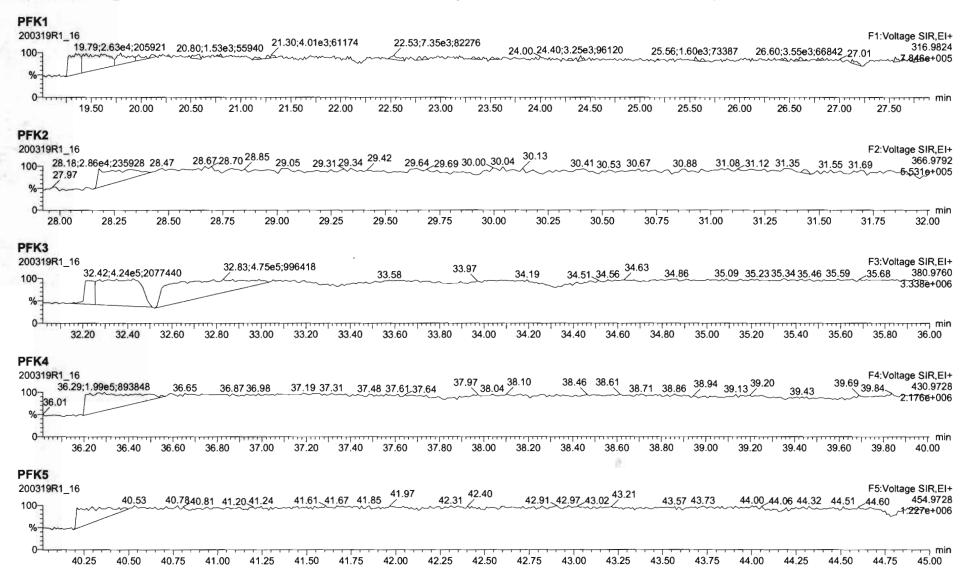


Dataset:

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Last Altered: Printed: Friday, March 20, 2020 07:45:25 Pacific Daylight Time Friday, March 20, 2020 07:47:29 Pacific Daylight Time

Name: 200319R1_16, Date: 20-Mar-2020, Time: 04:14:45, ID: 1903654-11RE3@5X PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013



CONFIRMATION

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Quantify Sample Summary Report

MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-19.qld

Last Altered:

Thursday, March 12, 2020 08:58:35 Pacific Daylight Time

Printed:

Thursday, March 12, 2020 09:01:54 Pacific Daylight Time

C7 0413/200

Method: Untitled 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_19, Date: 12-Mar-2020, Time: 00:49:46, ID: 1903654-02RE1 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013

Hink	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	9.29e3	0.75	NO	0.821	10.098	-16.79	2.7863		0.565
2	2 13C-2,3,7,8-TCDF	8.05e5	0.77	NO	1.10	10.098	16.76	81.605	41.2	0.484
3	3 13C-1,2,3,4-TCDF	1.77 e 6	0.78	NO	1.00	10.098	14.66	198.06	100	0.533

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Dataset:

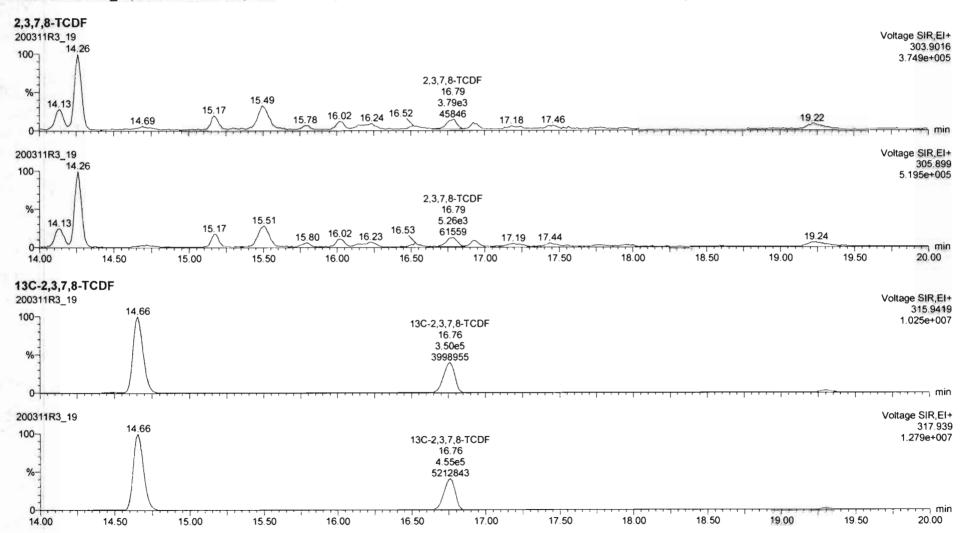
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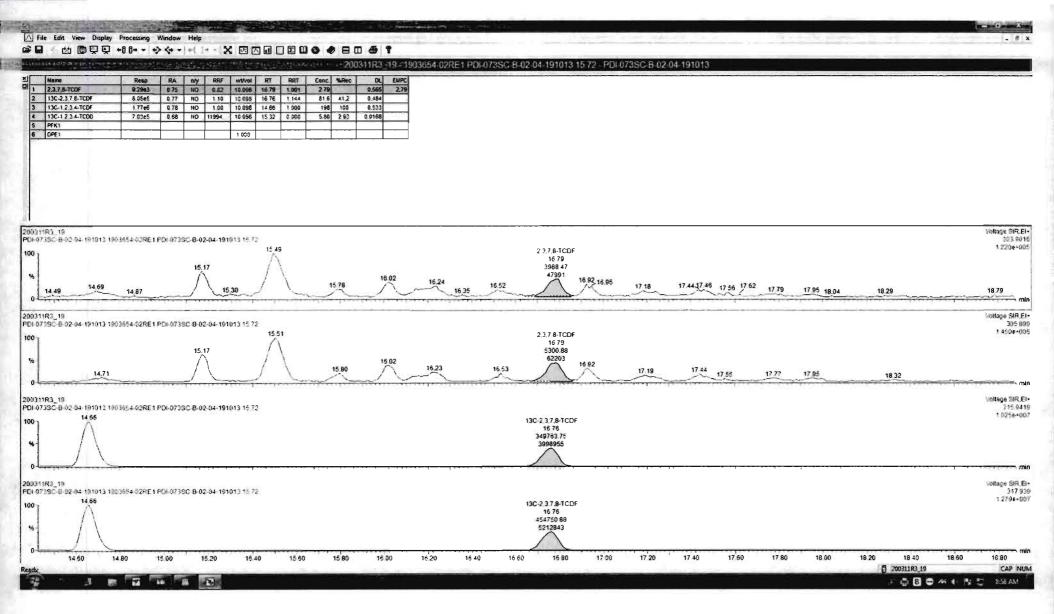
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Method: Untitled 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225 1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

46. ID: 1916 me: 200311R3_19, Date: 12-Mar-2020, Time: 00:49:46, ID: 1903654-02RE1 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013





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Quantify Sample Report

MassLynx 4.1 SCN815

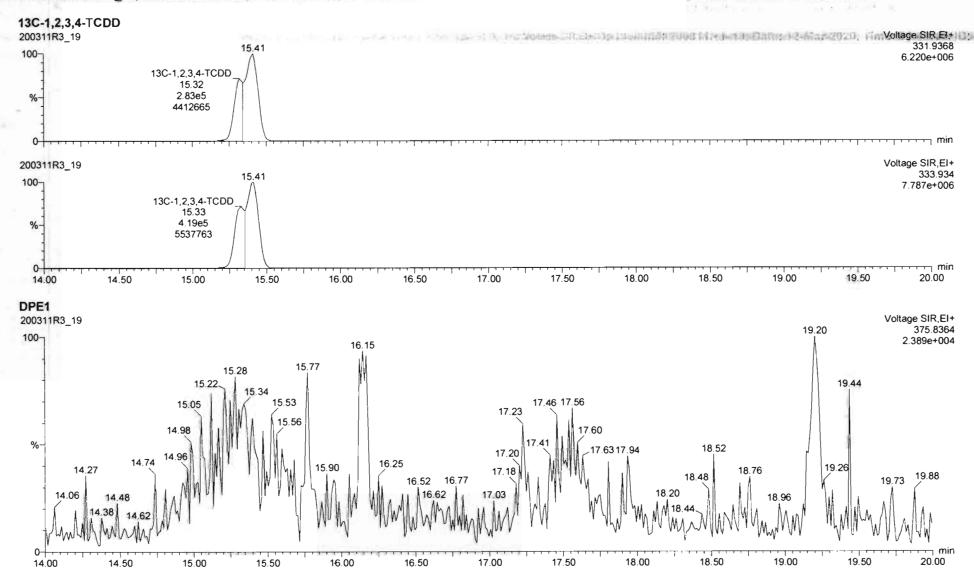
Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed: Thursday, March 12, 2020 08:57:57 Pacific Daylight Time Thursday, March 12, 2020 08:58:05 Pacific Daylight Time

45. D: + Name: 20031123-19, Date: 12-Mar-2020, Time: 00:49:46, ID: 1903654-02RE1 PDI-073SC-B-02-04-191013 15.72, Description: PDI-073SC-B-02-04-191013



Quantify Sample Summary Report

MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-20.qld

Last Altered:

Thursday, March 12, 2020 09:03:33 Pacific Daylight Time

Printed:

Thursday, March 12, 2020 09:04:18 Pacific Daylight Time

CPB 03/12/2020

Method: Untitled 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_20, Date: 12-Mar-2020, Time: 01:20:15, ID: 1903654-04RE1 PDI-073SC-B-06-08-191013 15.45, Description: PDI-073SC-B-06-08-191013

7	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	4.35e3	0.72	NO	0.821	10.030	16.69	0.82609		0.397
2	2 13C-2,3,7,8-TCDF	1.28e6	0.77	NO	1.10	10.030	16.66	99.403	49.9	0.363
3	3 13C-1,2,3,4-TCDF	2.33e6	0.79	NO	1.00	10.030	14.59	199.40	100	0.400

Work Order 1903654

Quantify Sample Report

Dataset:

Untitled

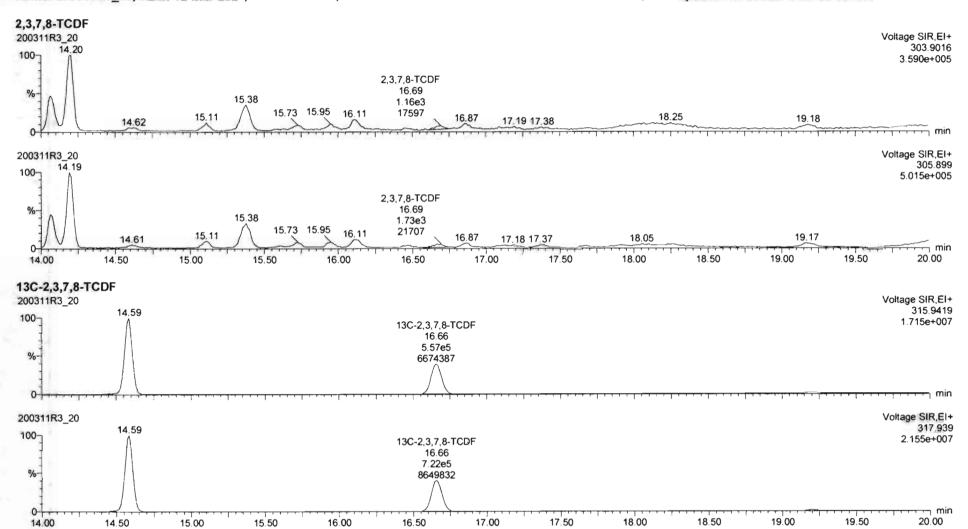
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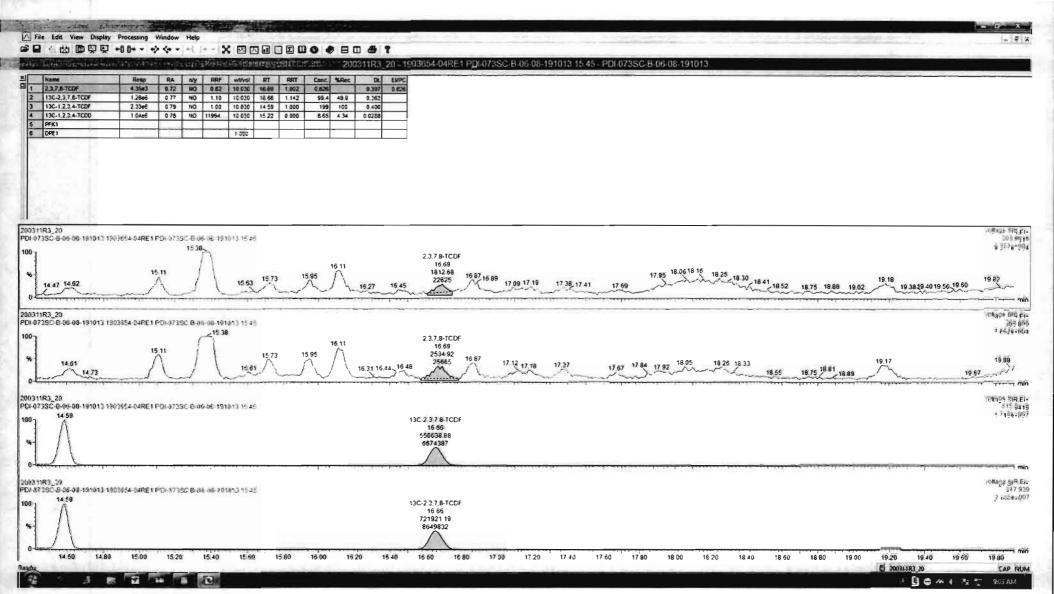
Thursday, March 12, 2020 09:04:50 Pacific Daylight Time Thursday, March 12, 2020 09:05:00 Pacific Daylight Time

Method: Untitled 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225 1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_20, Date: 12-Mar-2020, Time: 01:20:15, ID: 1903654-04RE1 PDI-073SC-B-06-08-191013 15.45, Description: PDI-073SC-B-06-08-191013





Quantify Sample Report

MassLynx 4.1 SCN815

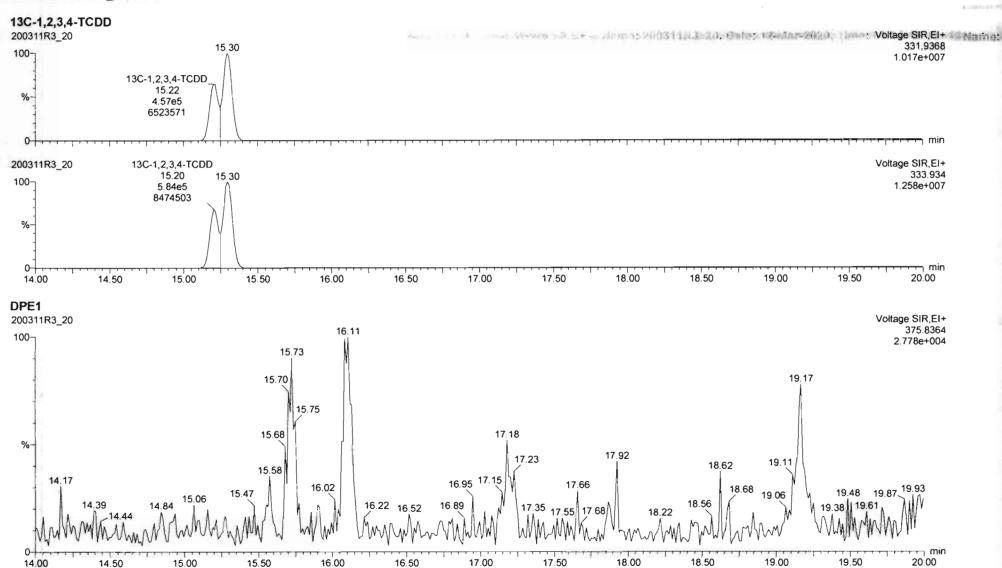
Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Thursday, March 12, 2020 09:04:50 Pacific Daylight Time Thursday, March 12, 2020 09:05:00 Pacific Daylight Time

Name: 200311R3_20, Date: 12-Mar-2020, Time: 01:20:15, ID: 1903654-04RE1 PDI-073SC-B-06-08-191013 15.45, Description: PDI-073SC-B-06-08-191013



Quantify Sample Summary Report Vista Analytical Laboratory MassLynx 4.1

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Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_8.qld

Last Altered:

Tuesday, March 24, 2020 14:42:59 Pacific Daylight Time

Printed:

Tuesday, March 24, 2020 14:44:45 Pacific Daylight Time

DB 3/24/20 C703/27/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_8, Date: 24-Mar-2020, Time: 14:05:06, ID: 1903654-05RE4 PDI-075SC-B-00-02-191013 20.09, Description: PDI-075SC-B-00-02-191013

The same	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	2.79e4	0.79	NO	0.982	10.003	✓ 17.887	17.88	1.000	1.001	428.60		4.22	429
2	2 13C-2,3,7,8-TCDF	1.33e4	0.80	NO	1.08	10.003	17.875	17.87	1.133	1.137	102.79	51.4	4.63	
3	3 13C-1,2,3,4-TCDF	2.38e4	0.81	NO	1.00	10.003	15.660	15.72	1.000	1.000	199.94	100	5.02	

Work Order 1903654

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Quantify Sample Report MassLynx 4.1

Vista Analytical Laboratory VG-10

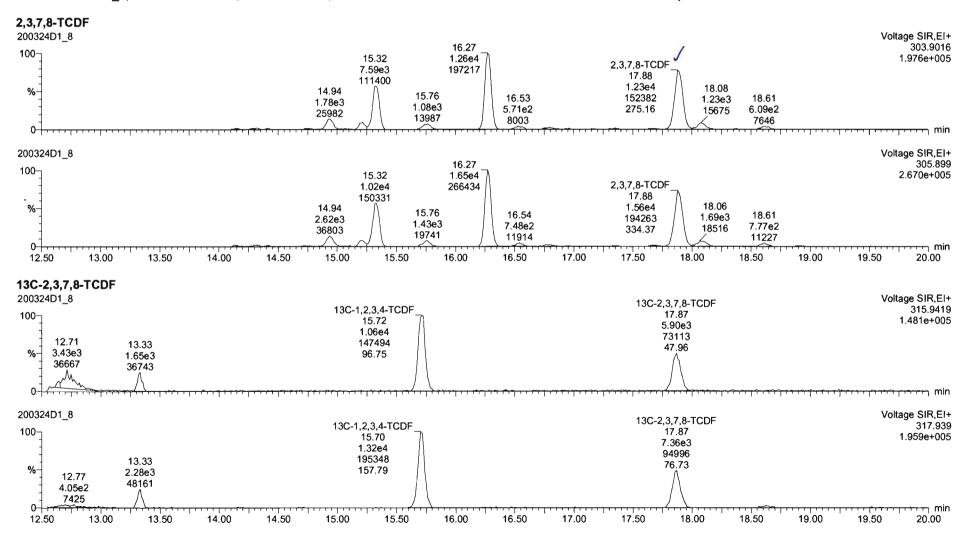
Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_8.qld

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Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19 Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_8, Date: 24-Mar-2020, Time: 14:05:06, ID: 1903654-05RE4 PDI-075SC-B-00-02-191013 20:09, Description: PDI-075SC-B-00-02-191013



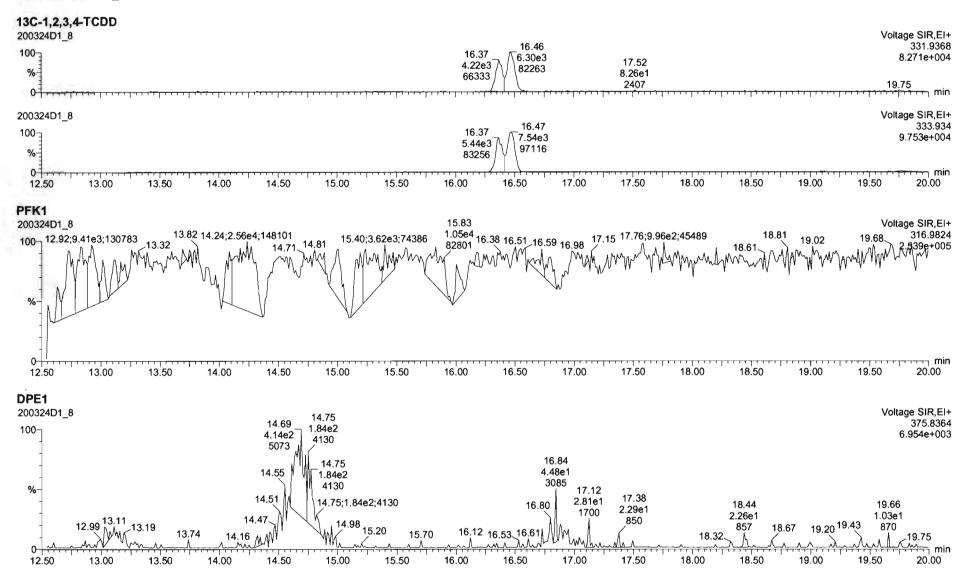
Quantify Sample Report MassLynx 4.1
Vista Analytical Laboratory VG-10

Dataset:

U:\VG7.PRO\Results\200324D1\200324D1 8.qld

Last Altered: Printed: Tuesday, March 24, 2020 14:42:59 Pacific Daylight Time Tuesday, March 24, 2020 14:45:44 Pacific Daylight Time

Name: 200324D1_8, Date: 24-Mar-2020, Time: 14:05:06, ID: 1903654-05RE4 PDI-075SC-B-00-02-191013 20.09, Description: PDI-075SC-B-00-02-191013



Quantify Sample Summary Report

MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-21.qld

Last Altered:

Thursday, March 12, 2020 09:05:06 Pacific Daylight Time

Printed:

Thursday, March 12, 2020 09:06:13 Pacific Daylight Time

GRB 03/12/2020 C7 03/13/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_21, Date: 12-Mar-2020, Time: 01:50:43, ID: 1903654-06RE1 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013

D-1334	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	1.30e6	0.77	NO	0.821	10.052	16.62	138.25		0.261
2	2 13C-2,3,7,8-TCDF	2.28e6	0.78	NO	1.10	10.052	16.60	161.95	81.4	0.314
3	3 13C-1,2,3,4-TCDF	2.55e6	0.78	NO	1.00	10.052	14.51	198.97	100	0.345

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Dataset:

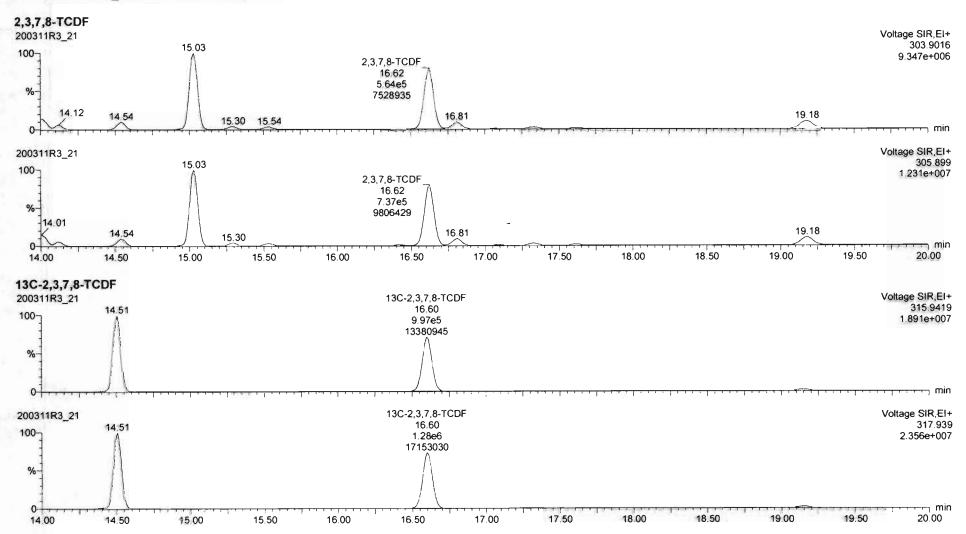
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Last Altered: Printed: Thursday, March 12, 2020 09:05:06 Pacific Daylight Time Thursday, March 12, 2020 09:05:12 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225 1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

10 Name: 2003 11R3_21, Date: 12-Mar-2020, Time: 01:50:43, ID: 1903654-06RE1 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013



Quantify Sample Report MassLynx 4.1 SCN815

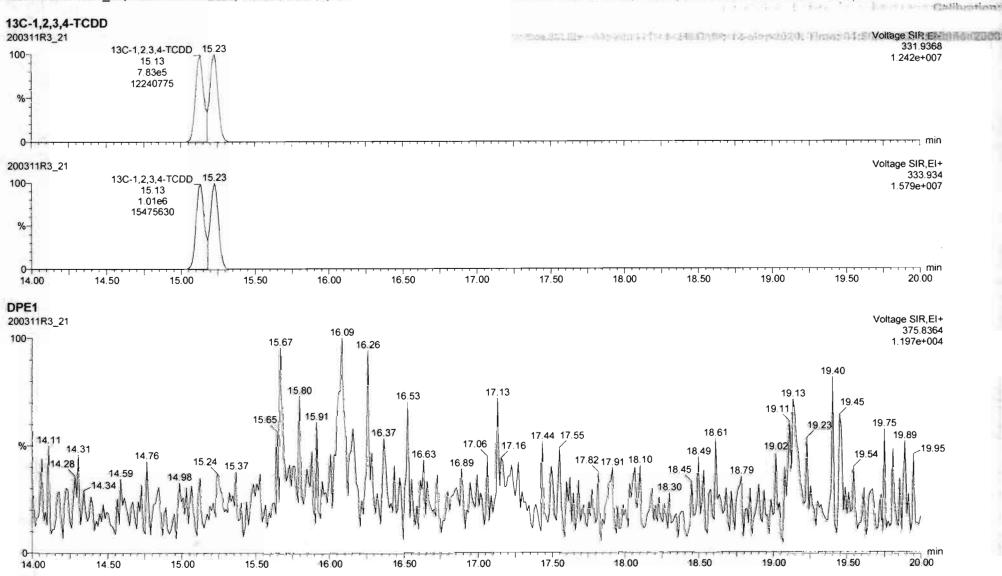
Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Thursday, March 12, 2020 09:05:06 Pacific Daylight Time Thursday, March 12, 2020 09:05:12 Pacific Daylight Time

43, ID: 19 Name: 200311R3_21, Date: 12-Mar-2020, Time: 01:50:43, ID: 1903654-06RE1 PDI-075SC-B-02-04-191013 17.76, Description: PDI-075SC-B-02-04-191013



Quantify Sample Summary Report

MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-23.qld

Last Altered:

Thursday, March 12, 2020 09:08:30 Pacific Daylight Time

Printed:

Thursday, March 12, 2020 09:09:00 Pacific Daylight Time

C1 03/12/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3 23, Date: 12-Mar-2020, Time: 02:51:37, ID: 1903654-07RE1 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

BIC) RE	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	8.47e4	0.75	NO	0.821	10.091-	16.60	8.8293		0.647
2	2 13C-2,3,7,8-TCDF	2.32e6	0.78	NO	1.10	10.091	16.58	163.54	82.5	0.529
3	3 13C-1,2,3,4-TCDF	2.55e6	0.79	NO	1.00	10.091	14.48	198.19	100	0.582

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Vista Analytical Laboratory VG-11

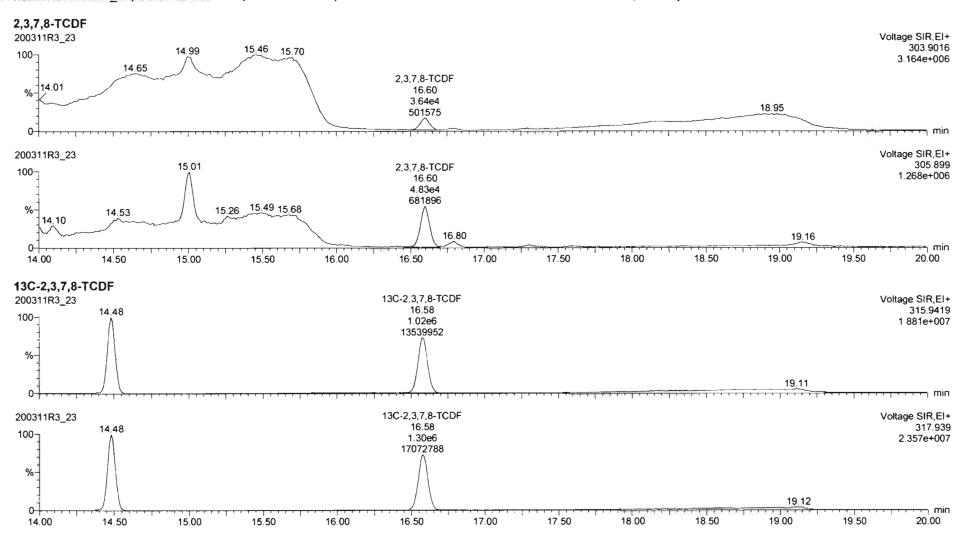
Dataset:

Untitled

Last Altered: Thursday, March 12, 2020 09:08:30 Pacific Daylight Time Printed: Thursday, March 12, 2020 09:08:38 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30 Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3 23, Date: 12-Mar-2020, Time: 02:51:37, ID: 1903654-07RE1 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013

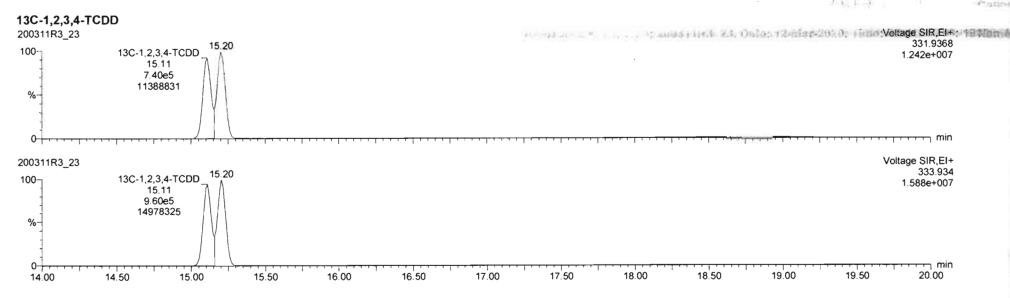


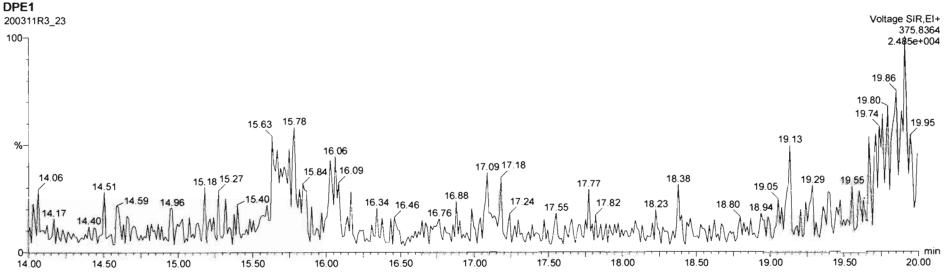
Dataset:

Untitled

Last Altered: Printed: Thursday, March 12, 2020 09:08:30 Pacific Daylight Time Thursday, March 12, 2020 09:08:38 Pacific Daylight Time

Name: 200311R3_23, Date: 12-Mar-2020, Time: 02:51:37, ID: 1903654-07RE1 PDI-075SC-B-04-06-191013 16.7, Description: PDI-075SC-B-04-06-191013





MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-22.qld

Last Altered:

Friday, March 13, 2020 12:20:47 Pacific Daylight Time

Printed:

Friday, March 13, 2020 12:21:37 Pacific Daylight Time

GPB 63/13/2020 C7 03/13/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_22, Date: 12-Mar-2020, Time: 02:21:10, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	3.69e5	0.77	NO	0.821	10.031	16.687	16.68	1.000	1.001	64.457		0.645	64.5
2	2 13C-2,3,7,8-TCDF	1.39e6	0.82	NO	1.10	10.031	16.465	16.66	1.133	1.143	112.09	56.2	0.638	
3	3 13C-1,2,3,4-TCDF	2.25e6	0.79	NO	1.00	10.031	14.450	14.58	1.000	1.000	199.38	100	0.702	

Dataset:

Untitled

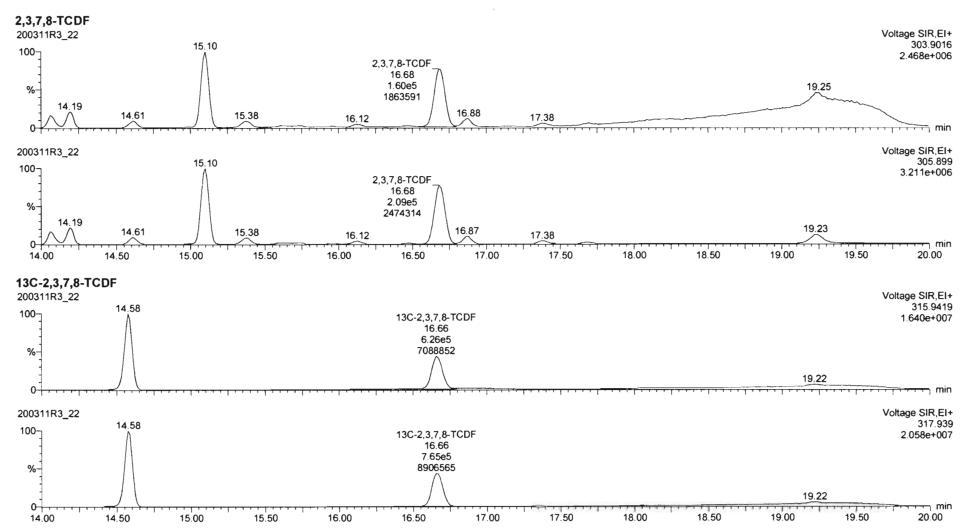
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Friday, March 13, 2020 12:20:47 Pacific Daylight Time Friday, March 13, 2020 12:21:01 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_22, Date: 12-Mar-2020, Time: 02:21:10, ID: B0A0056-DUP1 Duplicate 16.6, Description: Duplicate

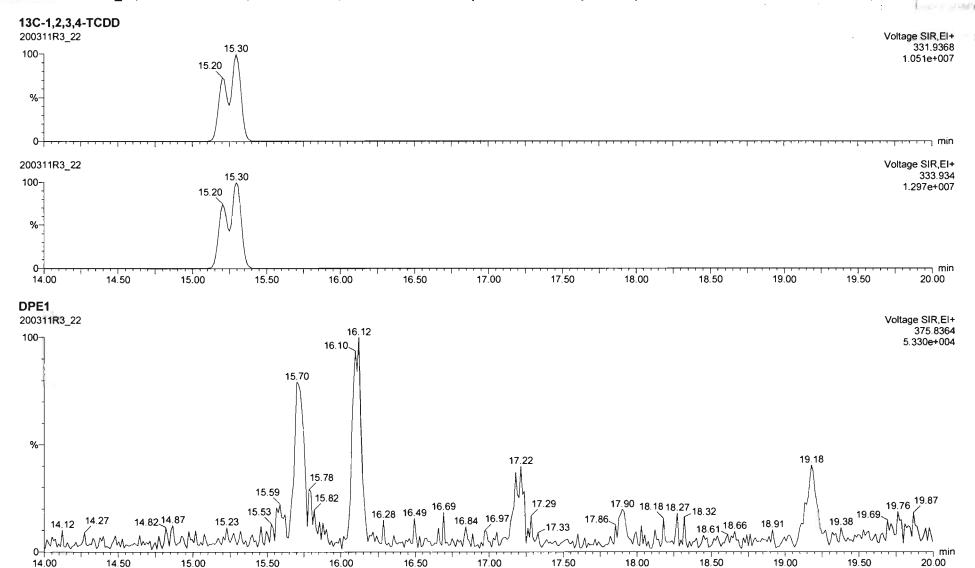


Dataset:

Untitled

Last Altered: Printed:

Friday, March 13, 2020 12:20:47 Pacific Daylight Time Friday, March 13, 2020 12:21:01 Pacific Daylight Time



MassLynx 4.1

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Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_9.qld

Last Altered:

Tuesday, March 24, 2020 15:02:02 Pacific Daylight Time

Printed:

Tuesday, March 24, 2020 15:03:10 Pacific Daylight Time

3/24/20 07 03/27/2020

Method: Untitled 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_9, Date: 24-Mar-2020, Time: 14:36:46, ID: 1903654-08RE4 PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	4.50e3	0.80	NO	0.982	10.212 V	18.146	18.15	1.000	1.000	14.090		1.09	14.1
2	2 13C-2,3,7,8-TCDF	6.36e4	0.78	NO	1.08	10.212	18.149	18.15	1.133	1.127	115.04	58.7	5.13	
3	3 13C-1,2,3,4-TCDF	1.00e5	0.79	NO	1.00	10.212	16.100	16.10	1.000	1.000	195.84	100	5.55	

Work Order 1903654

Quantify Sample Report MassLynx 4.1
Vista Analytical Laboratory VG-10

Dataset:

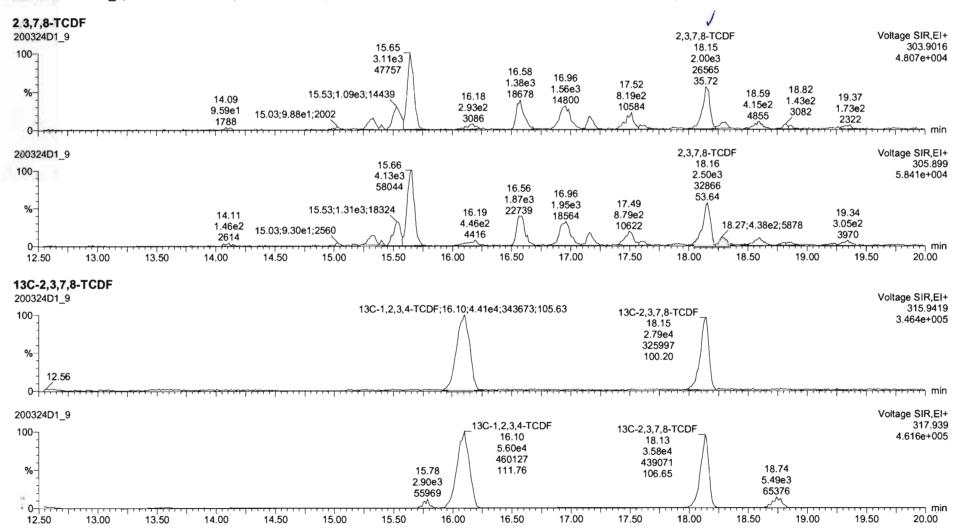
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Method: Untitled 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_9, Date: 24-Mar-2020, Time: 14:36:46, ID: 1903654-08RE4 PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013



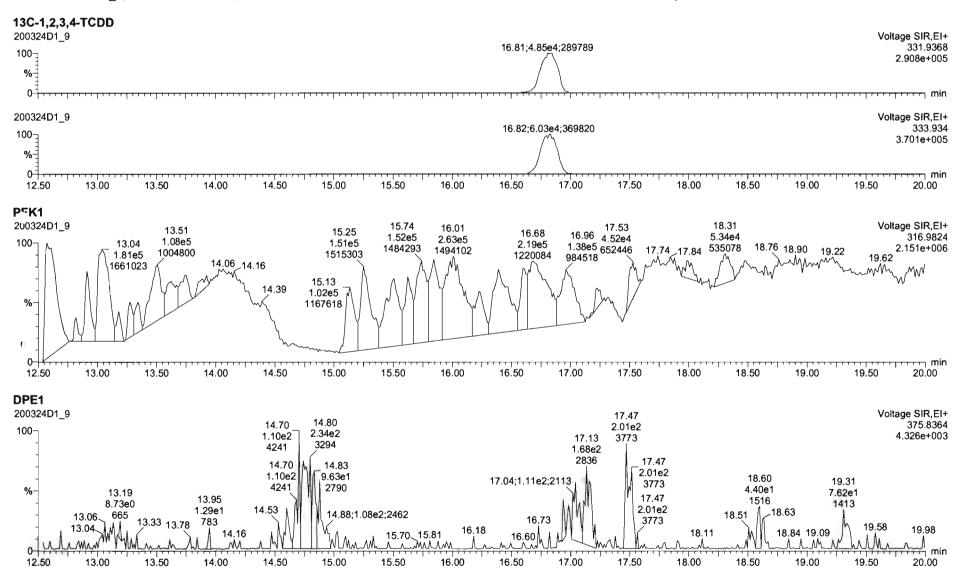
Dataset:

U:\VG7.PRO\Results\200324D1\200324D1 9.qld

Last Altered: Printed:

Tuesday, March 24, 2020 15:02:02 Pacific Daylight Time Tuesday, March 24, 2020 15:03:30 Pacific Daylight Time

Name: 200324D1 9, Date: 24-Mar-2020, Time: 14:36:46, ID: 1903654-08RE4 PDI-075SC-B-06-08-191013 16.51, Description: PDI-075SC-B-06-08-191013



MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-24.qld

Last Altered:

Thursday, March 12, 2020 09:10:10 Pacific Daylight Time

Printed:

Thursday, March 12, 2020 09:10:39 Pacific Daylight Time

GRB 03/12/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225 1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3 24, Date: 12-Mar-2020, Time: 03:22:06, ID: 1903654-09RE1 PDI-076SC-B-00-02-191013 18.3, Description: PDI-076SC-B-00-02-191013

I CIA TAIL	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	8.08e4	0.76	NO	0.821	10.012	1 6.59	6.5972		0.585
2	2 13C-2,3,7,8-TCDF	2.98e6	0.77	NO	1.10	10.012	16.56	210.08	105	0.900
3	3 13C-1,2,3,4-TCDF	2.57e6	0.79	NO	1.00	10.012	14.46	199.76	100	0.991

Dataset:

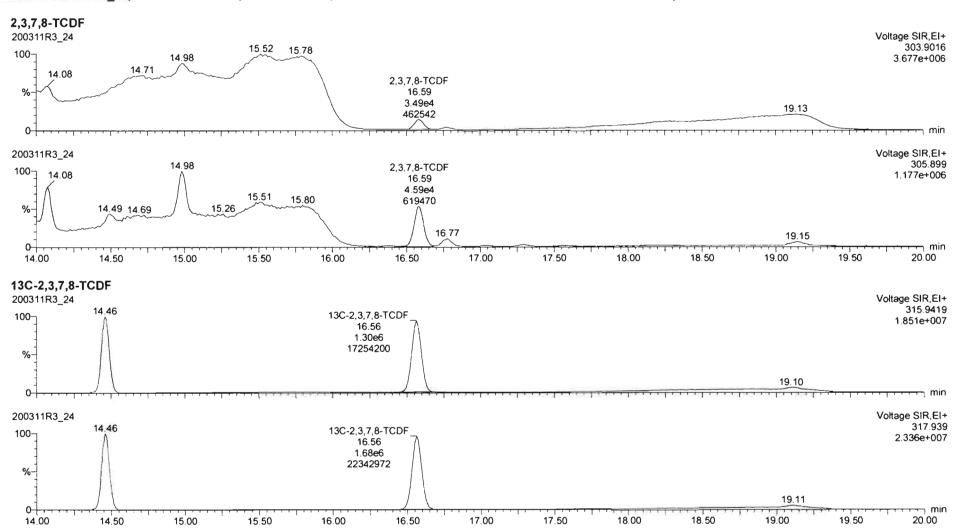
Untitled

Last Altered: Printed: Thursday, March 12, 2020 09:10:10 Pacific Daylight Time Thursday, March 12, 2020 09:10:16 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_24, Date: 12-Mar-2020, Time: 03:22:06, ID: 1903654-09RE1 PDI-076SC-B-00-02-191013 18.3, Description: PDI-076SC-B-00-02-191013

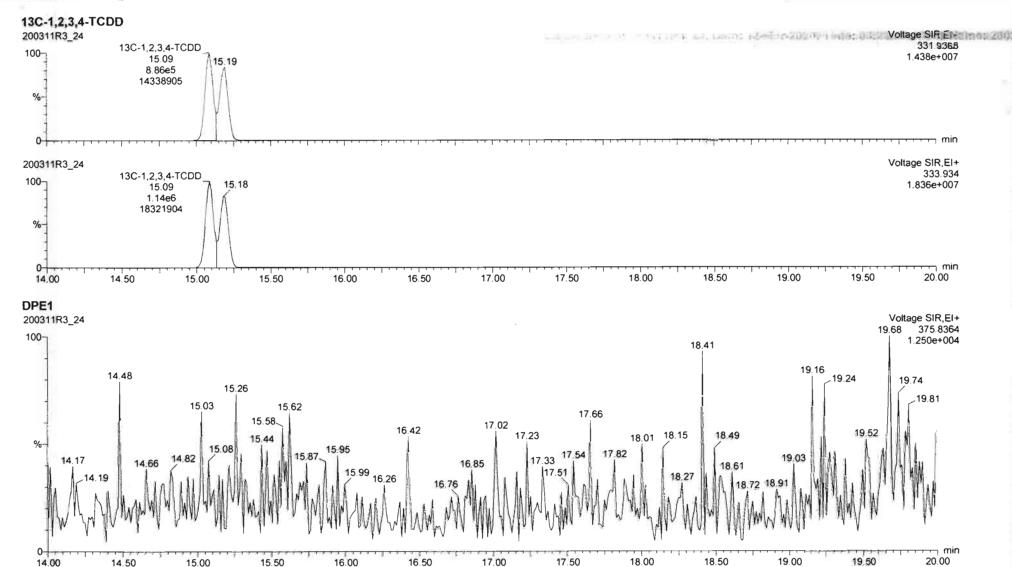


Dataset:

Untitled

Last Altered: Printed: Thursday, March 12, 2020 09:10:10 Pacific Daylight Time Thursday, March 12, 2020 09:10:16 Pacific Daylight Time

Name: 200311R3_24, Date: 12-Mar-2020, Time: 03:22:06, ID: 1903654-09RE1 PDI-076SC-B-00-02-191013 18.3, Description: PDI-076SC-B-00-02-191013



MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-25.qld

Last Altered:

Thursday, March 12, 2020 09:10:48 Pacific Daylight Time

Printed:

Thursday, March 12, 2020 09:12:45 Pacific Daylight Time

GPB 03/12/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_25, Date: 12-Mar-2020, Time: 03:52:34, ID: 1903654-10RE1 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013

	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	4.05e5	0.75	NO	0.821	10.096	16.59	36.957		0.495
2	2 13C-2,3,7,8-TCDF	2.64 e 6	0.77	NO	1.10	10.096	16.56	187.02	94.4	1.04
3	3 13C-1,2,3,4-TCDF	2.54 e 6	0.79	NO	1.00	10.096	14.47	198.10	100	1.14

Work Order 1903654

Dataset:

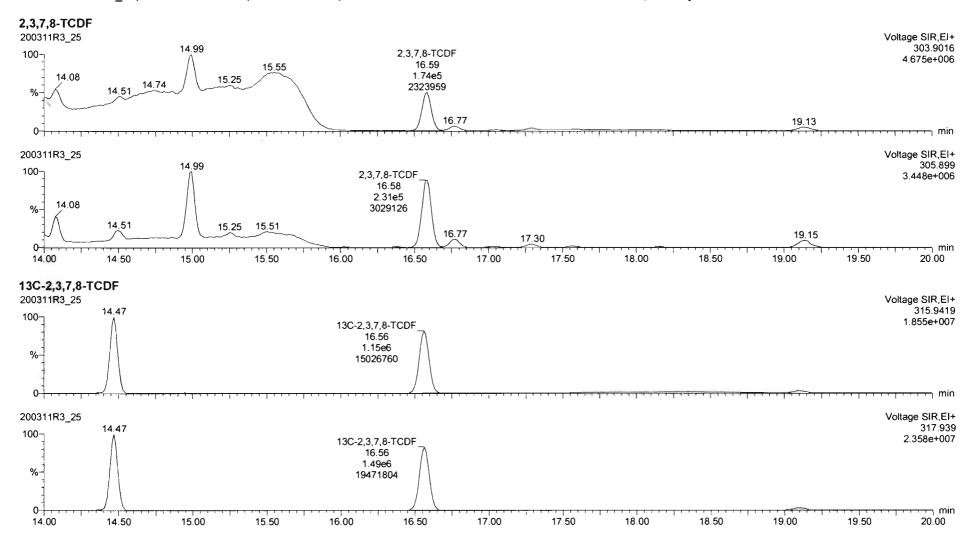
Untitled

Last Altered: Printed:

Thursday, March 12, 2020 09:10:48 Pacific Daylight Time Thursday, March 12, 2020 09:12:15 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30 Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_25, Date: 12-Mar-2020, Time: 03:52:34, ID: 1903654-10RE1 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013



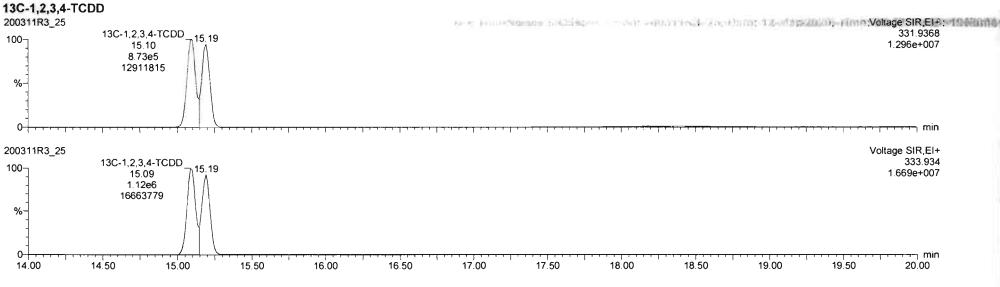
Dataset:

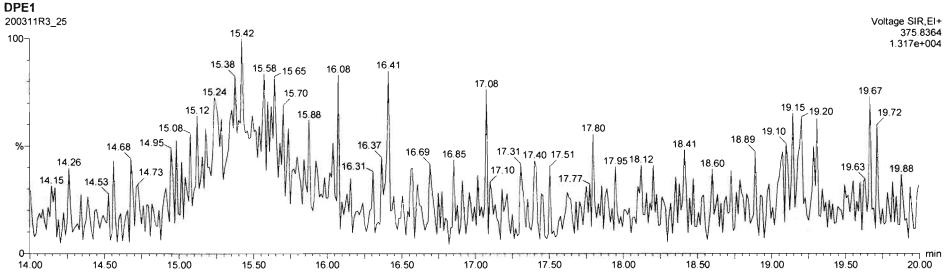
Untitled

Last Altered: Printed:

Thursday, March 12, 2020 09:10:48 Pacific Daylight Time Thursday, March 12, 2020 09:12:15 Pacific Daylight Time

Name: 200311R3_25, Date: 12-Mar-2020, Time: 03:52:34, ID: 1903654-10RE1 PDI-076SC-B-02-05-191013 17.48, Description: PDI-076SC-B-02-05-191013





MassLynx 4.1

Page 1 of 1

Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_10.qld

Last Altered: Printed:

Tuesday, March 24, 2020 15:36:32 Pacific Daylight Time

Tuesday, March 24, 2020 15:37:43 Pacific Daylight Time

3/24/20 C7 03/27/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_10, Date: 24-Mar-2020, Time: 15:08:29, ID: 1903654-11RE4 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013

100121	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	6.29e4	0.77	NO	0.982	10.004	17.887	17.89	1.000	1.001	167.45		1.10	167
2	2 13C-2,3,7,8-TCDF	7.65e4	0.77	NO	1.08	10.004	17.898	17.87	1.133	1.135	137.83	68.9	2.66	
3	3 13C-1,2,3,4-TCDF	1.02e5	0.78	NO	1.00	10.004	15.660	15.74	1.000	1.000	199.91	100	2.89	

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Quantify Sample Report MassLynx 4.1
Vista Analytical Laboratory VG-10

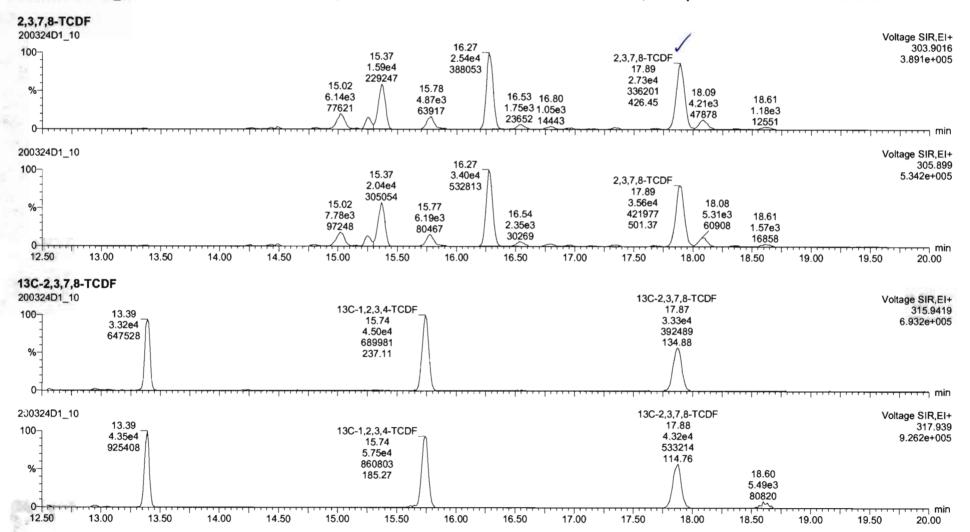
Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_10.qld

Last Altered: Printed: Tuesday, March 24, 2020 15:36:32 Pacific Daylight Time Tuesday, March 24, 2020 15:38:03 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19 Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_10, Date: 24-Mar-2020, Time: 15:08:29, ID: 1903654-11RE4 PDI-076SC-B-05-07-191013 16:31, Description: PDI-076SC-B-05-07-191013



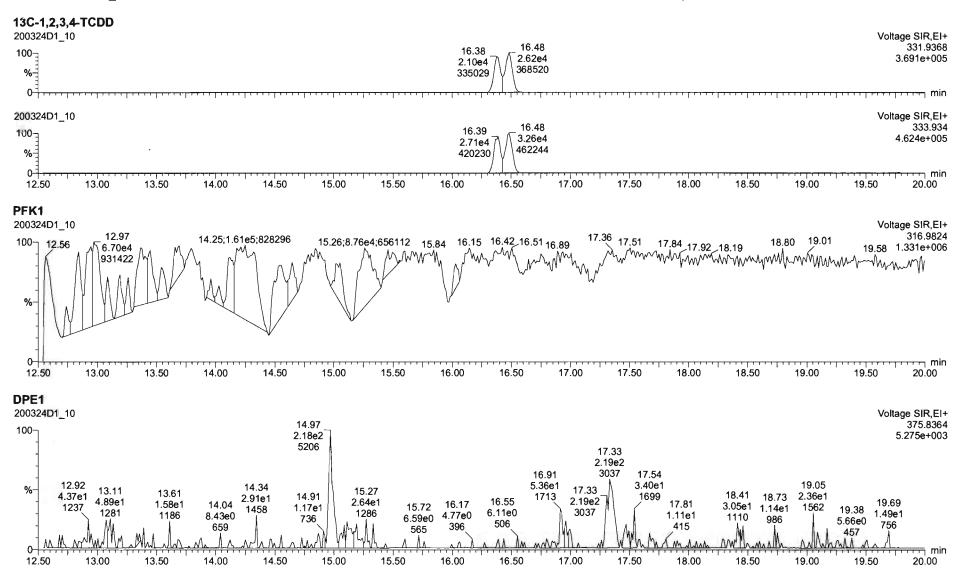
Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_10.qld

Last Altered: Printed:

Tuesday, March 24, 2020 15:36:32 Pacific Daylight Time Tuesday, March 24, 2020 15:38:03 Pacific Daylight Time

Name: 200324D1_10, Date: 24-Mar-2020, Time: 15:08:29, ID: 1903654-11RE4 PDI-076SC-B-05-07-191013 16.31, Description: PDI-076SC-B-05-07-191013



CONTINUING CALIBRATION

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HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST200202R4-1	_		Reviewed By: C7 02/04/2020	
End Calibration ID: NA	_		milais a sale	~
	Beg.	End	Beg.	End
Ion abundance within QC limits?		NA	Mass resolution ≥	
Concentrations within criteria?	V	中	□ 5k □ 6-8K □ 8K ⋈ 10K 1614 1699 429 1613/1668/8280	
TCDD/TCDF Valleys <25%	\Box	Ф	intergrated peaks display correctly?	NA
First and last cluters present?		中	GC Break <20%	
Retention Times within criteria?		中	8280 CS1 End Standard:	
Verification Std. named correctly?	\Box		- Ratios within limits, S/N <2.5:1, CS1 within 12 hours	NA
(ST-Year-Month-Day-VG ID)				
Forms signed and dated?	V		(A) END. RES CHECK HAS ONE MASS BELOW 10K.	
Correct ICAL referenced?	GPB			
Run Log:				
- Correct instrument listed?		J		,
- Samples within 12 hour clock?	(M)	N	İ	
- Bottle position verfled?	G	PB_	_	

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Page: 1 of 1

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200202R1\200202r1-1.qld

Last Altered: Printed:

Monday, February 03, 2020 10:55:26 Pacific Standard Time Monday, February 03, 2020 10:55:56 Pacific Standard Time

GRB 02/03/2020 C7 02/04/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_1, Date: 02-Feb-2020, Time: 10:22:59, ID: ST200202R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

172	C'Marrio	Resp	IS Resp	RA	ndy	H	PHEN	रिर	RT Flag	Pred AFT	श्वस ्	Ocate.	Table:	310 mt
	1 2,3,7,8-TCDD	1.24e5	1.25e6	0.77	NO	0.988	25.74	25.72	NO	1.001	1.001	10.049	100	NO
	2 1,2,3,7,8-PeCDD	4.50e5	9.79e5	0.63	NO	0.972	30.66	30.65	NO	1.001	1.001	47.249	94.5	NO
	3 1,2,3,4,7,8-HxCDD	4.16e5	7.69e5	1.22	NO	1.07	34.00	34.00	NO	1.000	1.000	50.513	101	NO
	4 1,2,3,6,7,8-HxCDD	4.21e5	9.58e5	1.23	NO	0.921	34.08	34.10	NO	1.000	1.001	47.769	95.5	NO
5	5 1,2,3,7,8,9-HxCDD	3.95e5	8.72e5	1.25	NO	0.918	34.41	34.38	NO	1.001	1.000	49.302	98.6	NO
3.	6 1,2,3,4,6,7,8-HpCDD	2.97e5	6.51e5	1.01	NO	0.923	37.92	37.92	NO	1.000	1.000	49.532	99.1	NO
7	7 OCDD	5.90e5	1.23e6	0.89	NO	0.975	40.91	40.92	NO	1.000	1.000	98.659	98.7	NO
8	8 2,3,7,8-TCDF	1.40e5	1.78e6	0.71	NO	0.802	24.85	24.84	NO	1.001	1.001	9.7761	97.8	NO
\$	9 1,2,3,7,8-PeCDF	7.15e5	1.57e6	1.54	NO	0.907	29.38	29.37	NO	1.001	1.001	50.222	100	NO
10	10 2,3,4,7,8-PeCDF	7.09e5	1.48e6	1.54	NO	0.952	30.36	30.35	NO	1.001	1.001	50.354	101	NO
þi	11 1,2,3,4,7,8-HxCDF	4.44e5	1. 00e 6	1.19	NO	0.862	33.11	33.13	NO	1.000	1.001	51.310	103	NO
12	12 1,2,3,6,7,8-HxCDF	5.02e5	1.15e6	1.16	NO	0.841	33.25	33.25	NO	1.000	1.000	52.069	104	NO
13	13 2,3,4,6,7,8-HxCDF	4.76e5	1.03e6	1.19	NO	0.898	33.85	33.83	NO	1.001	1.000	51.224	102	NO
14	14 1,2,3,7,8,9-HxCDF	3.80e5	8.78e5	1.19	NO	0.858	34.72	34.73	NO	1.000	1.000	50.481	101	NO
ba .	15 1,2,3,4,6,7,8-HpCDF	3.22e5	7.40e5	0.97	NO	0.851	36.51	36.48	NO	1.001	1.000	51.175	102	NO
	16 1,2,3,4,7,8,9-HpCDF	2.63e5	5.25e5	0.96	NO	0.980	38.49	38.51	NO	1.000	1.001	51.096	102	NO
77	17 OCDF	5.86e5	1. 44e 6	0.87	NO	0.806	41.10	41.10	NO	1.000	1.000	100.80	101	NO
	18 13C-2,3,7,8-TCDD	1.25e6	1. 05e6	0.79	NO	1.20	25.71	25.70	NO	1.026	1.026	99.292	99.3	NO
	19 13C-1,2,3,7,8-PeCDD	9.79e5	1.05e6	0.63	NO	0.967	30.45	30.64	NO	1.215	1.222	96.592	96.6	NO
	20 13C-1,2,3,4,7,8-HxCDD	7.69e5	9. 87e 5	1.27	NO	0.874	33.98	33.99	NO	1.014	1.014	89.172	89 .2	NO
1201251	21 13C-1,2,3,6,7,8-HxCDD	9.58e5	9.87e5	1.26	NO	1.05	34.08	34.08	NO	1.017	1.017	92.779	92.8	NO
	22 13C-1,2,3,7,8,9-HxCDD	8.72e5	9.87e5	1.26	NO	0.974	34.38	34.37	NO	1.026	1.026	90.707	90.7	NO
	23 13C-1,2,3,4,6,7,8-HpCD	D 6.51e5	9.87e5	1.06	NO	0.747	37.93	37.91	NO	1.132	1.131	88.212	8 8.2	NO
	24 13C-OCDD	1.23e6	9.87e5	0.87	NO	0.707	40.81	40.91	NO	1.218	1.221	176.14	88.1	NO
	25 13C-2,3,7,8-TCDF	1.78e6	1.6 5e6	0.78	NO	1.07	24.89	24.82	NO	0.993	0.990	101.06	101	NO
	26 13C-1,2,3,7,8-PeCDF	1.57 e6	1.6 5e 6	1.60	NO	1.00	29.22	29.35	NO	1.166	1.171	94.685	94.7	NO
	27 13C-2,3,4,7,8-PeCDF	1.48e6	1.65e6	1.58	NO	0.962	30.17	30.33	NO	1.204	1.210	92.960	93.0	NO
TO SERVICE ON	28 13C-1,2,3,4,7,8-HxCDF	1.00e6	9.87e5	0.50	NO	1.05	33 .11	33.11	NO	0.988	0.988	97.011	97.0	NO .
	29 13C-1,2,3,6,7,8-HxCDF	1.15e6	9.87e5	0.51	NO	1.19	33.21	33.24	NO	0.991	0.992	97.663	97.7	NO
A SA	30 13C-2,3,4,6,7,8-HxCDF	1.03e6	9.87e5	0.51	NO	1.07	33.81	33.82	NO	1.009	1.009	98.256	96.3	NO
	31 13C-1,2,3,7,8,9-HxCDF	8.78e5	9.87e5	0.52	NO	0.922	34.71	34.72	NO	1.036	1.036	96.485	96.5	NO .

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Dataset:

U:\VG12.PRO\Results\200202R1\200202r1-1.qld

Last Altered:

Monday, February 03, 2020 10:55:26 Pacific Standard Time

Printed: Monday, February 03, 2020 10:55:56 Pacific Standard Time

Name: 200202R1_1, Date: 02-Feb-2020, Time: 10:22:59, ID: ST200202R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

9 - 625		Reop	43/84	FVA	,n/y	FAFF	Pred.RT	RF	RT Fleg	PROCERT	FERT	Conto.	7. Bac	STD-out
	32 13C-1,2,3,4,6,7,8-HpCDF	7.40e5	9.87e5	0.44	NO	0.767	36.46	36.47	NÔ	1.088	1.088	97.695	97.7	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.25e5	9.87e5	0.43	NO	0.552	38.47	38.49	NO	1.148	1.149	96.260	96.3	NO
33 34	34 13C-OCDF	1.44e6	9.87e5	0.87	NO	0.789	41.05	41.10	NO	1.225	1.227	185.17	92.6	NO
35	35 37CI-2,3,7,8-TCDD	1.23e5	1.05e6			1.18	25.74	25.72	NO	1.027	1.026	9.9905	99.9	NO
38	36 13C-1,2,3,4-TCDD	1.05e6	1.0 5e 6	0.82	NO	1.00	25.08	25.06	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.65e6	1.65e6	0.79	NO	1.00	23.42	23.40	NO	1.000	1.000	100.00	100	NO
38 30	38 13C-1,2,3,4,6,9-HxCDF	9.87e5	9.87e5	0.51	NO	1.00	33.52	33.51	NO	1.000	1.000	100.00	100	YES OF
	39 Total Tetra-Dioxins		1.25e6			0.988	24.62		NO	0.000		86.453		NO
40	40 Total Penta-Dioxins		9.7 9e 5			0.972	29.96		NO	0.000		211.80		NO
41	41 Total Hexa-Dioxins		0.00e0			0.921	33.63		NO	0.000		246.97		NO
42	42 Total Hepta-Dioxins		6.51e5			0.923	37.64		NO	0.000		134.93		NO
43	43 Total Tetra-Furans		1.78e6			0.802	23.61		NO	0.000		48.820		NO
44	44 1st Func. Penta-Furans		0.00e0			0.907	27.09		NO	0.000				NO
46	45 Total Penta-Furans		0. 00e 0			0.907	29.27		NO	0.000		172.77		NO
46	46 Total Hexa-Furans		0.00e0			0.898	33.56		NO	0.000		287.30		NO
47	47 Total Hepta-Furans		0.00e0			0.851	37.83		NO	0.000		102.27		NO

Work Order 1903654 Page 650 of 1184

Quantify Sample Summary Report Vista Analytical Laboratory VG-11 MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

Untitled

Last Altered:

Monday, February 03, 2020 10:47:55 Pacific Standard Time

Printed: Monday, February 03, 2020 10:48:01 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 23 Jan 2020 15:01:26

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_1, Date: 02-Feb-2020, Time: 10:22:59, ID: ST200202R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	(Name)	RI
1	1 1,3,6,8-TCDD (First)	21.77
2	2 1,2,8,9-TCDD (Last)	26.68
3	3 1,2,4,7,9-PeCDD (First)	28.45
4	4 1,2,3,8,9-PeCDD (Last)	31.03
5	5 1,2,4,6,7,9-HxCDD (First)	32.52
6	6 1,2,3,7,8,9-HxCDD (Last)	34.38
7	7 1.2,3,4,6,7,9-HpCDD (First)	36.87
8	8 1,2,3,4,6,7,8-HpCDD (Last)	37.92
9	9 1,3,6,8-TCDF (First)	19.66
10	10 1,2,8,9-TCDF (Last)	26.83
11	11 1,3,4,6,8-PeCDF (First)	26.78
12	12 1,2,3,8,9-PeCDF (Last)	31.28
13	13 1,2,3,4,6,8-HxCDF (First)	31.96
14	14 1.2,3,7,8,9-HxCDF (Last)	34.73
15	15 1.2,3.4,6,7.8-HpCDF (First)	36.48
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.51

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Quantify Compound Summary Report Vista Analytical Laboratory VG-11 MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

Untitled

Last Altered: Printed: Monday, February 03, 2020 10:49:24 Pacific Standard Time Monday, February 03, 2020 10:49:36 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Compound name: 2,3,7,8-TCDD

	80	Acq.Date	Acq.Three
1 200202R1_1	ST200202R1_1 1613 CS3 19L2305	02-Feb-20	10:22:59
200202R1_2	B0A0056-BS1 OPR 10	02-Feb-20	11:11:34
3 200202R1_3	SOLVENT BLANK	02-Feb-20	11:57:59
4 200202R1_4	B0A0056-BLK1 Method Blank 10	02-Feb-20	12:44:53
\$ 200202R1_5	1904161-16RE1 PDI-066SC-A-06-07-191011	02-Feb-20	13:31:53
6 200202R1_6	1903654-01 PDI-073SC-B-00-02-191013 15.31	02-Feb-20	14:18:55
7 200202R1_7	1903654-02 PDI-073SC-B-02-04-191013 15.72	02-Feb-20	15:05:54
200202R1_8	1903654-03 PDI-073SC-B-04-06-191013 12.66	02-Feb-20	15:52:51
200202R1_9	1903654-04 PDI-073SC-B-06-08-191013 15.45	02-Feb-20	16:39:50
200202R1_10	1903654-05 PDI-075SC-B-00-02-191013 20.19	02-Feb-20	17:26:51
11 200202R1_11	1903654-06 PDI-075SC-B-02-04-191013 17.76	02-Feb-20	18:13:46
12 200202R1_12	B0A0056-DUP1 Duplicate 16.6	02-Feb-20	19:00:52
200202R1_13	1903654-07 PDI-075SC-B-04-06-191013 16.7	02-Feb-20	19:47:53
14 200202R1_14	1903654-08 PDI-075SC-B-06-08-191013 16.33	02-Feb-20	20:34:53
200202R1_15	1903654-09 PDI-076SC-B-00-02-191013 18.3	02-Feb-20	21:21:52

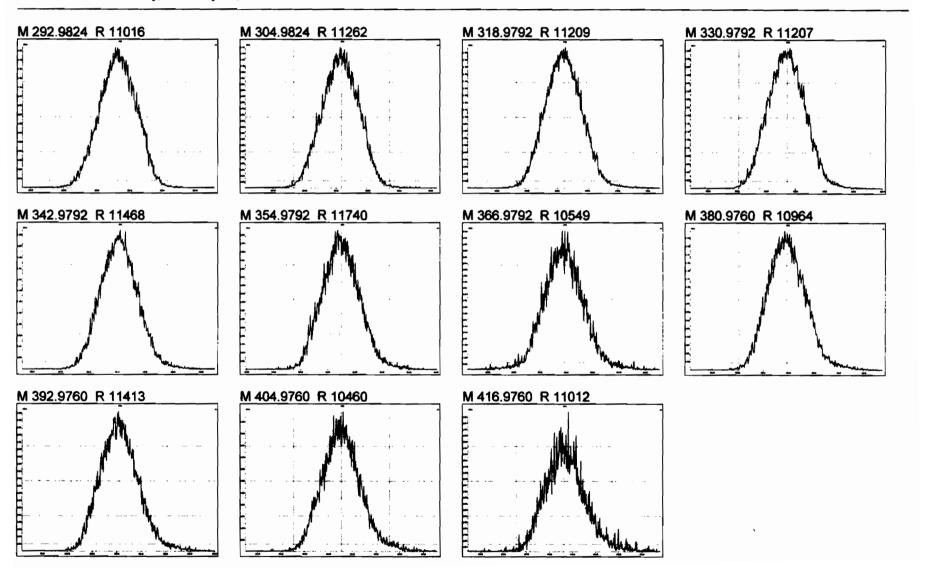
Work Order 1903654 Page 652 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Sunday, February 02, 2020 10:18:54 Pacific Standard Time



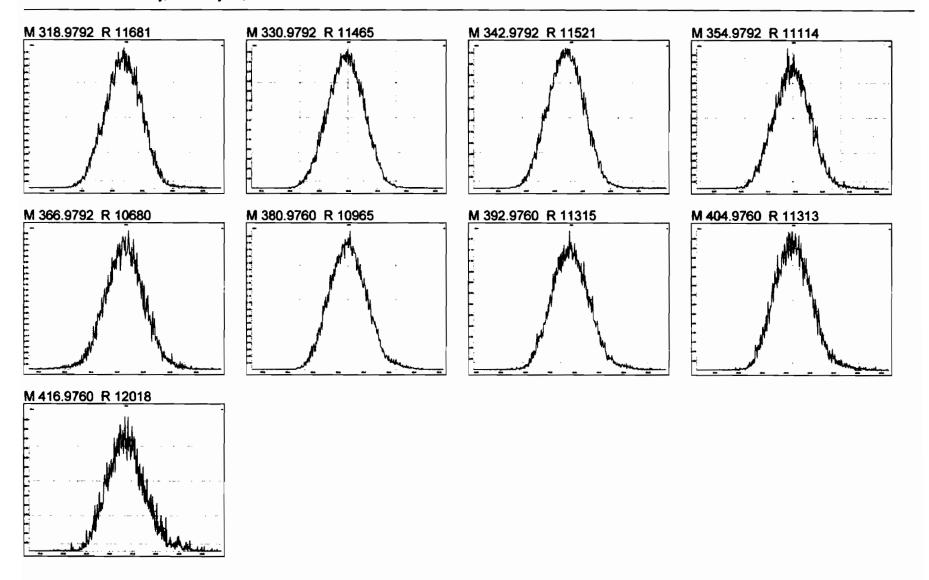
Work Order 1903654 Page 653 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk,ref Function: 2 @ 200 (ppm)

Printed:

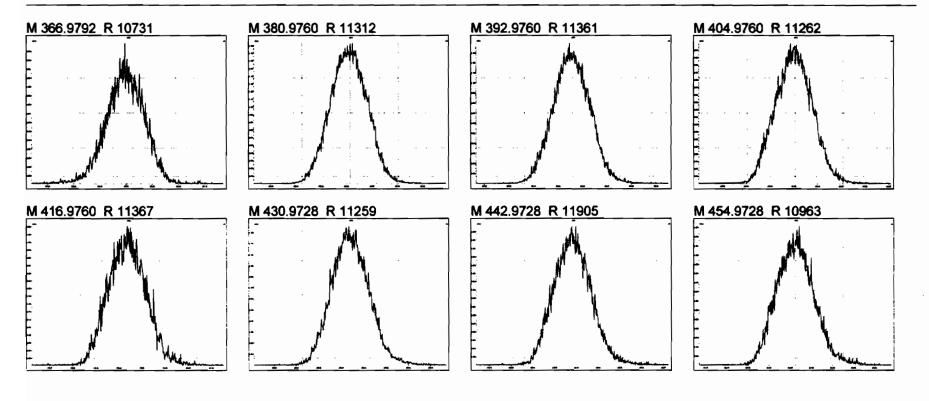
Sunday, February 02, 2020 10:20:32 Pacific Standard Time



Work Order 1903654 Page 654 of 1184

File: Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Sunday, February 02, 2020 10:21:10 Pacific Standard Time



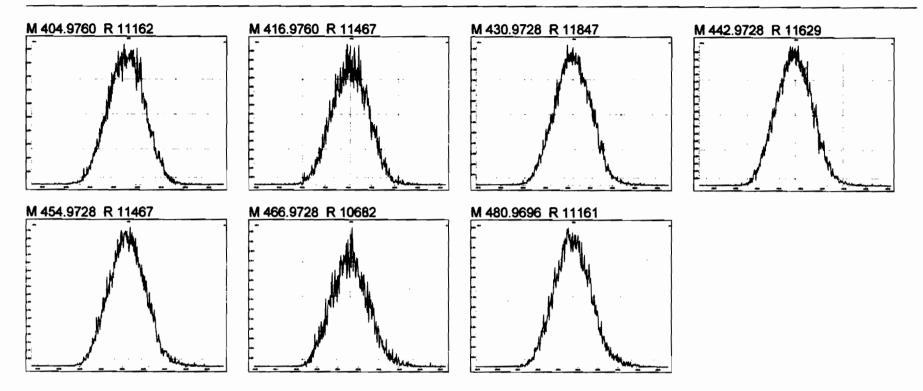
Work Order 1903654 Page 655 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed:

Sunday, February 02, 2020 10:21:40 Pacific Standard Time



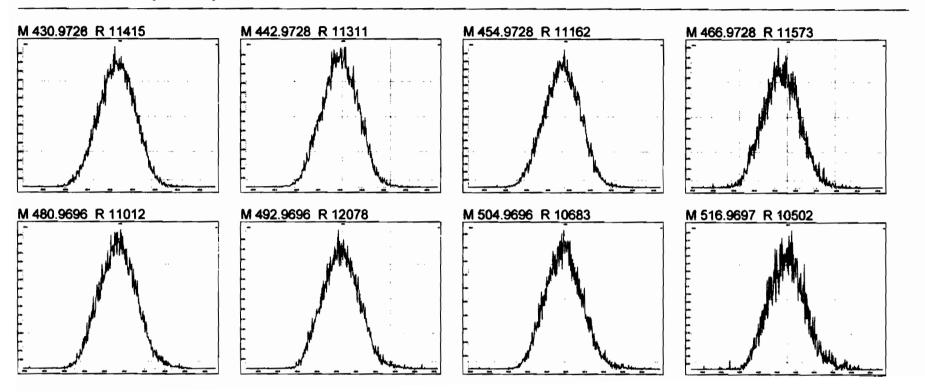
Work Order 1903654 Page 656 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Sunday, February 02, 2020 10:22:13 Pacific Standard Time



Work Order 1903654 Page 657 of 1184

Quantify Sample Report

MassLynx 4.1 SCN815

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Vista Analytical Laboratory VG-11

Dataset:

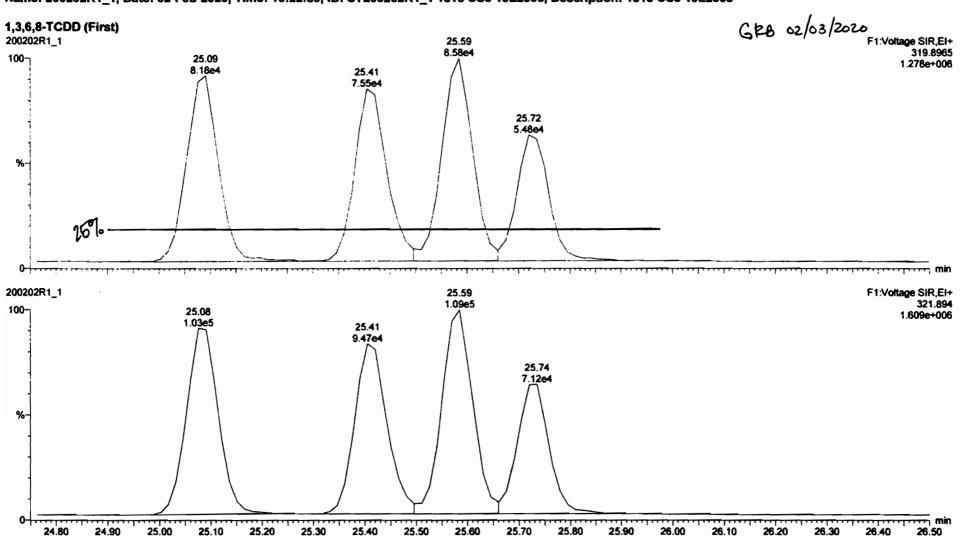
Untitled

Last Altered: Printed: Monday, February 03, 2020 10:47:55 Pacific Standard Time Monday, February 03, 2020 10:48:01 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 23 Jan 2020 15:01:26

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R1_1, Date: 02-Feb-2020, Time: 10:22:59, ID: ST200202R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305



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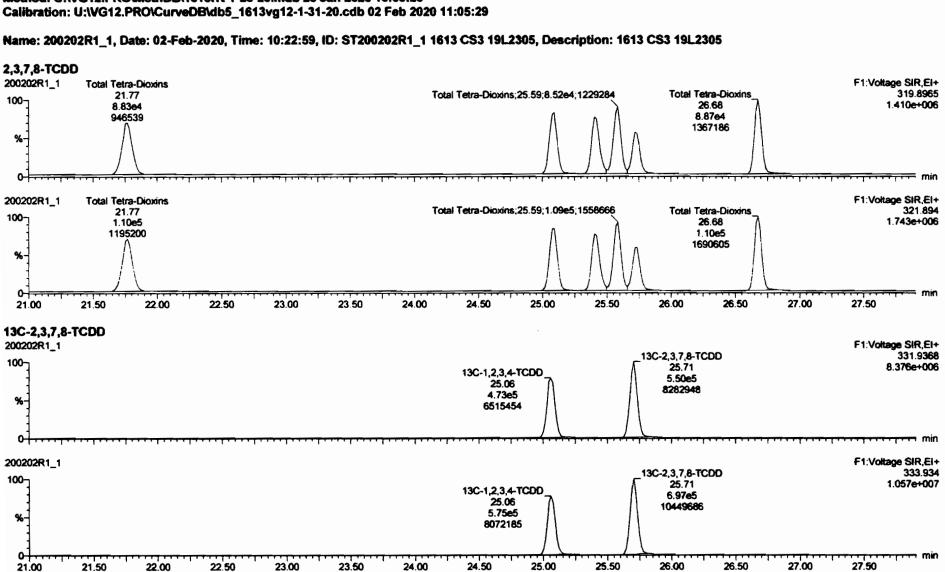
Dataset:

Untitled

Last Altered: Printed:

Monday, February 03, 2020 10:46:43 Pacific Standard Time Monday, February 03, 2020 10:46:53 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23



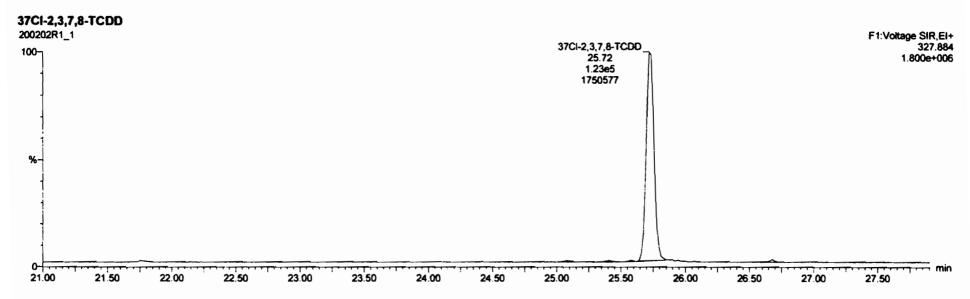
MassLynx 4.1 SCN815

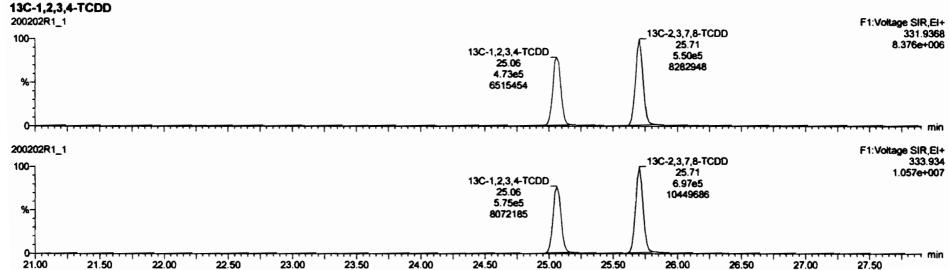
Page 2 of 13

Dataset: Untitled

Last Altered: Monday, February 03, 2020 10:46:43 Pacific Standard Time Printed: Monday, February 03, 2020 10:46:53 Pacific Standard Time

Name: 200202R1_1, Date: 02-Feb-2020, Time: 10:22:59, ID: ST200202R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305





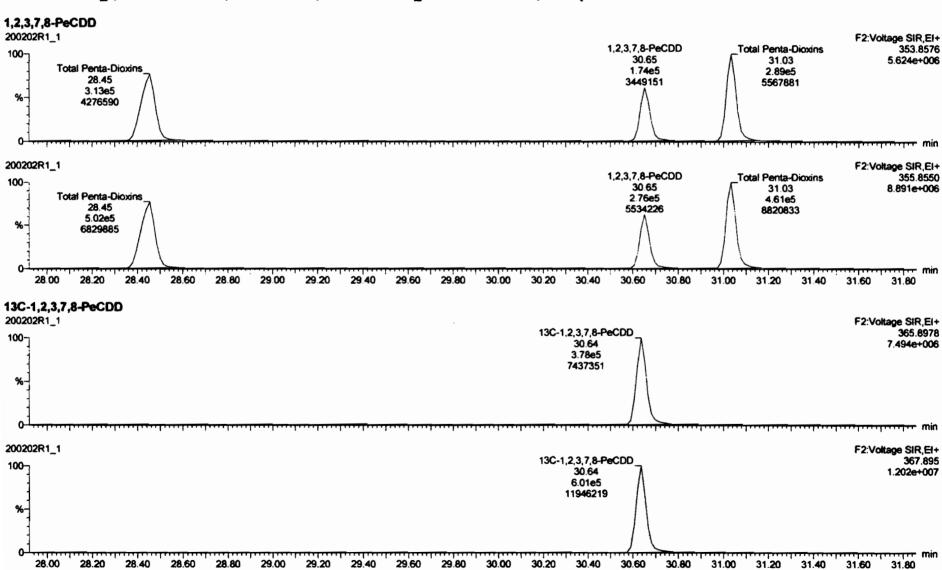
Work Order 1903654 Page 660 of 1184

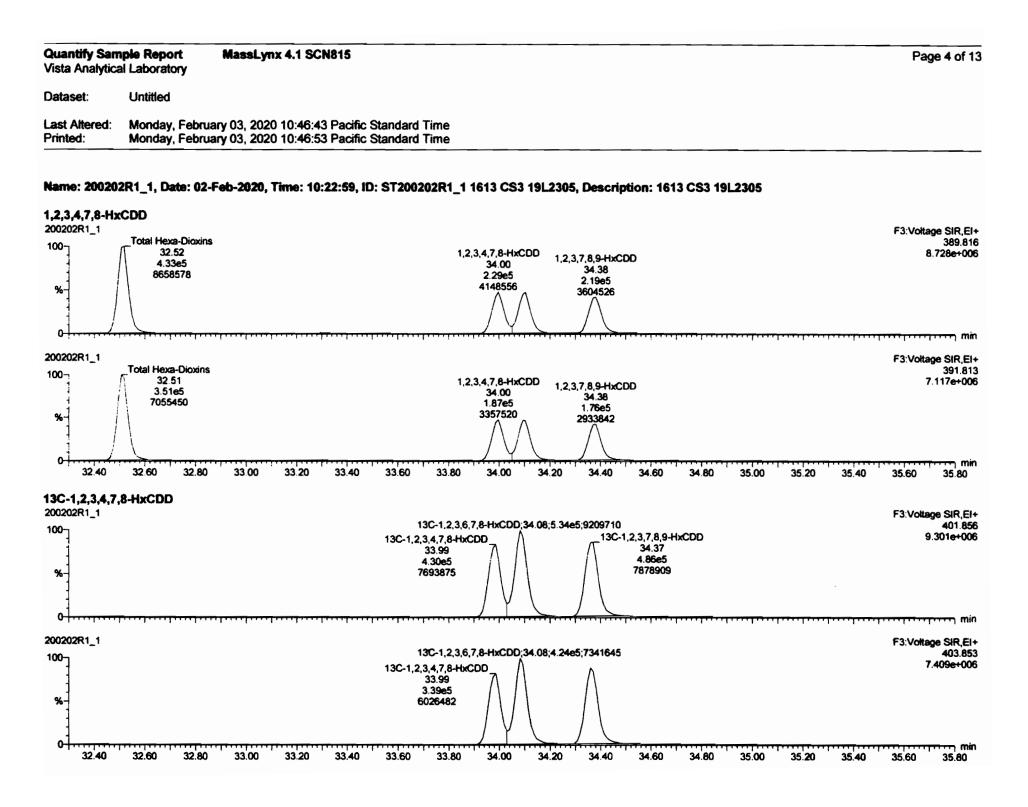
Dataset:

Untitled

Last Altered: Printed: Monday, February 03, 2020 10:46:43 Pacific Standard Time Monday, February 03, 2020 10:46:53 Pacific Standard Time

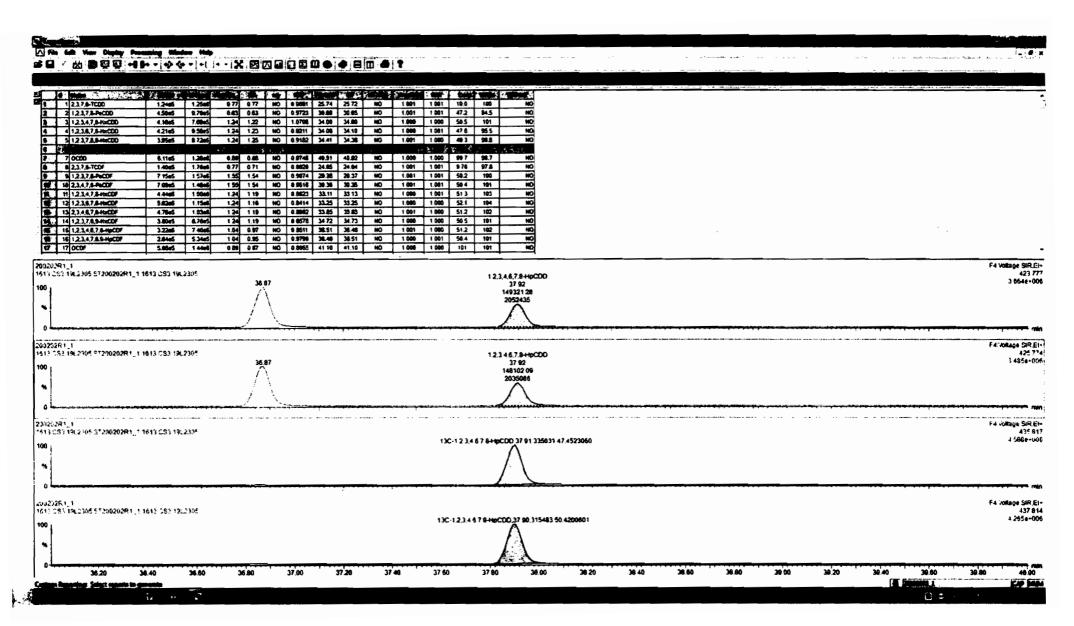
Name: 200202R1_1, Date: 02-Feb-2020, Time: 10:22:59, ID: ST200202R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305





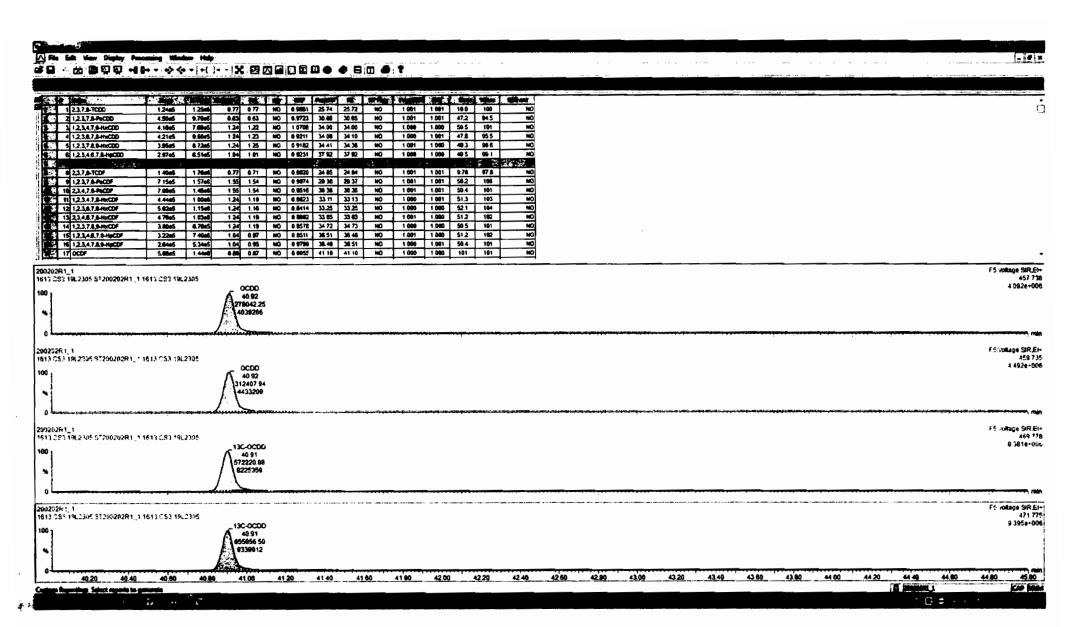
Work Order 1903654 Page 662 of 1184

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33.80

34.00

34.20

34.40

34.60

34.80

35.00

35.20

35.40

33.60

33.00

32.80

33.20

33.40

32.00

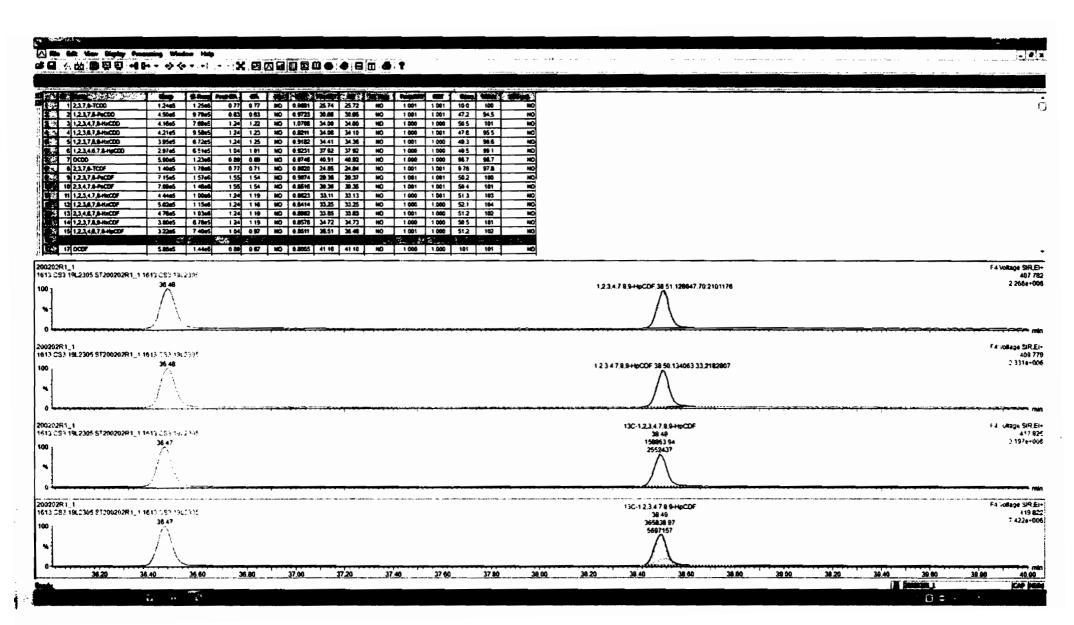
32.20

32.40

32.60

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Work Order 1903654



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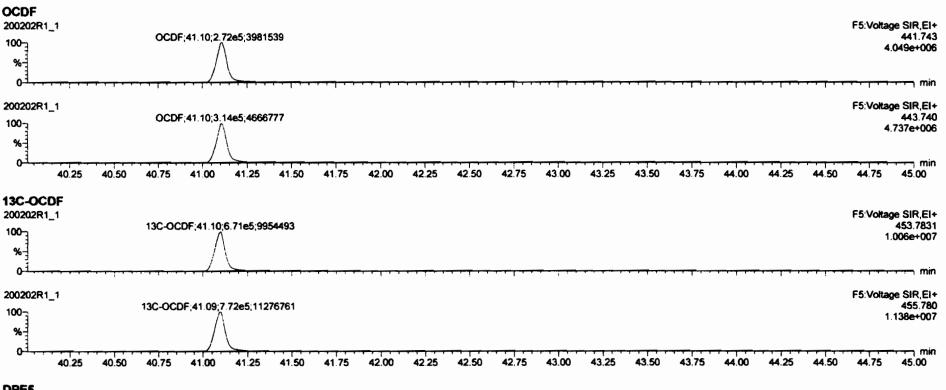
Dataset:

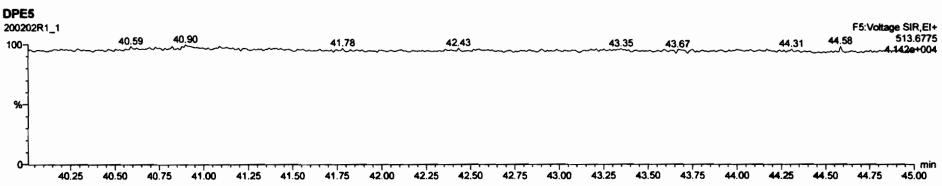
Untitled

Last Altered: Printed:

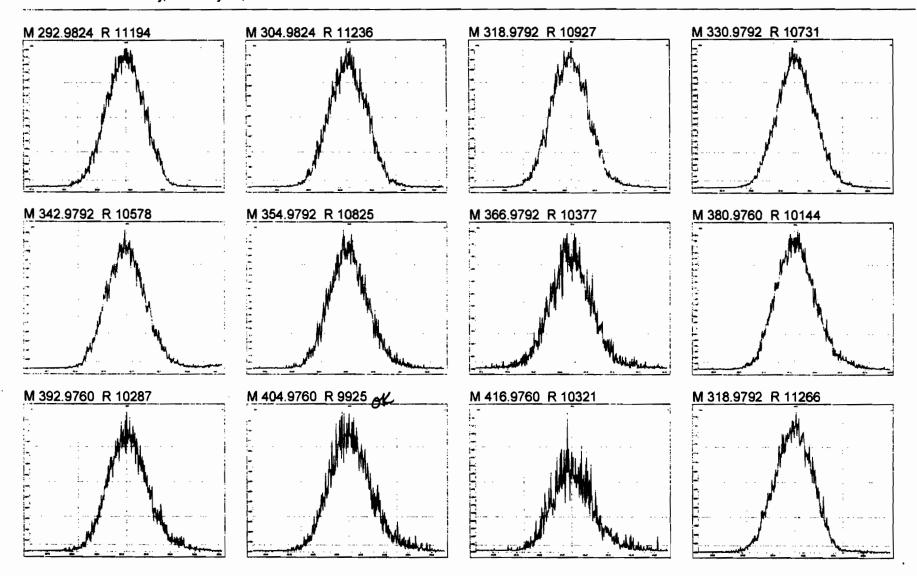
Monday, February 03, 2020 10:46:43 Pacific Standard Time Monday, February 03, 2020 10:46:53 Pacific Standard Time

Name: 200202R1_1, Date: 02-Feb-2020, Time: 10:22:59, ID: ST200202R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

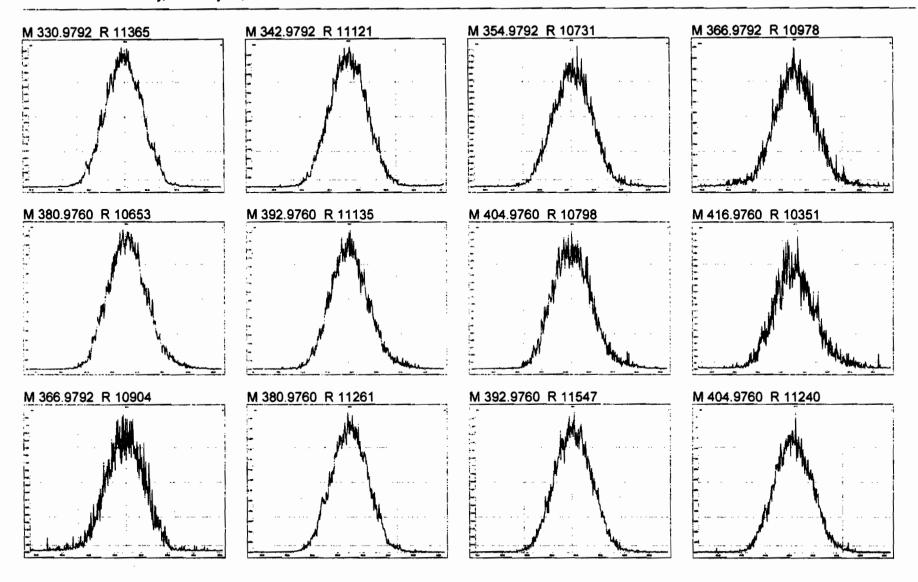




Sunday, February 02, 2020 22:17:46 Pacific Standard Time

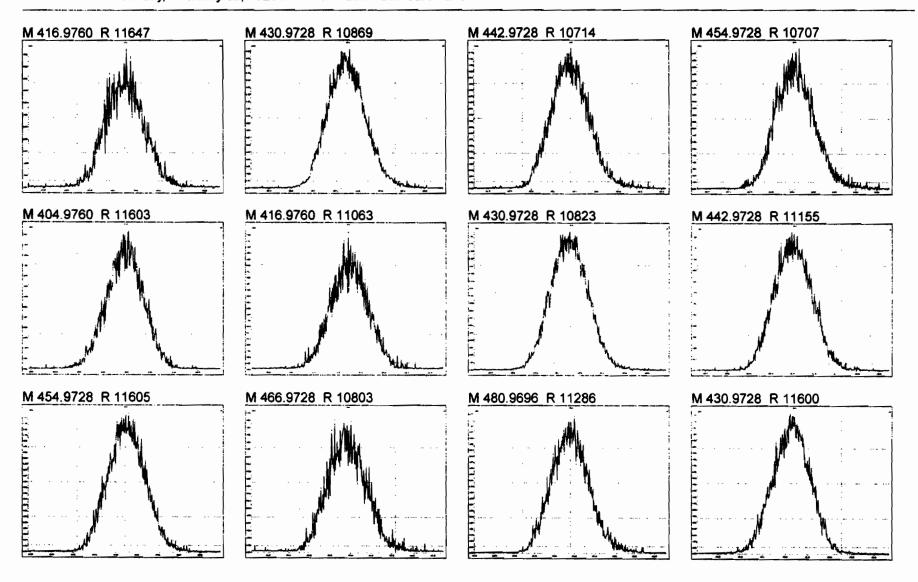


Sunday, February 02, 2020 22:17:46 Pacific Standard Time



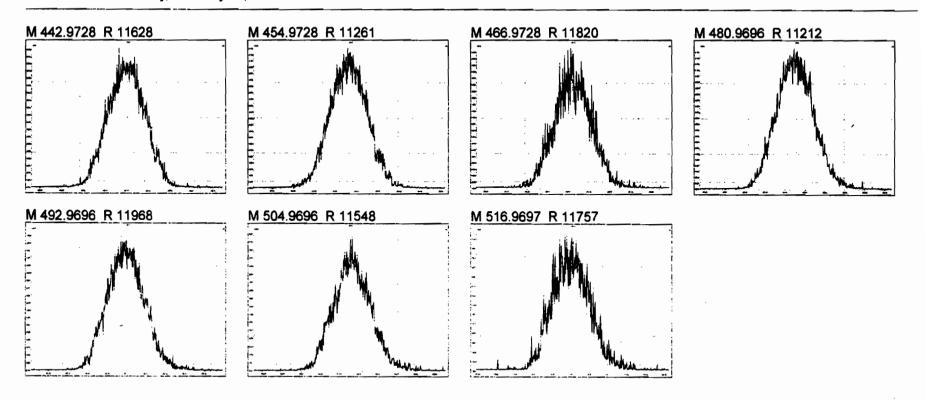
Work Order 1903654 Page 676 of 1184

Sunday, February 02, 2020 22:17:46 Pacific Standard Time



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Sunday, February 02, 2020 22:17:46 Pacific Standard Time



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HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST20020212-1		Reviewed By: 07 02/04/2020	
		Initials & Date	
End Calibration ID:NA		<u>A</u> Beg.	
	Beg. Er	<u>Beg.</u>	End
ion abundance within QC limits?		Mass resolution ≥	
Concentrations within criteria?		□ 5k □ 6-8K □ 8K ★ 10K 1614 1699 429 1613/1668/8280	
TCDD/TCDF Valleys <25%		Intergrated peaks display correctly?	NA
First and last cluters present?		GC Break <20%	
Retention Times within criteria?		8280 CS1 End Standard:	
Verification Std. named correctly?		- Ratios within limits, S/N <2.5:1, CS1 within 12 hours	No.
(ST-Year-Month-Day-VG ID)			
Forms signed and dated?		Comments: (A) BEG. PES CHECK HAO SHE MASS BELOW 10K	
Correct ICAL referenced?	GRB		
Run Log:			
- Correct instrument listed?			
- Samples within 12 hour clock?	(Ŷ) 1	· N	
- Bottle position verfied?	GPB		

Page: 1 of 1

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200202R2\200202R2-2.qld

Last Altered: Printed:

Monday, February 03, 2020 11:02:50 Pacific Standard Time Monday, February 03, 2020 11:03:05 Pacific Standard Time

GRB 02/03/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R2_2, Date: 02-Feb-2020, Time: 23:04:08, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	# Name	Boop	16 Resp	RA	nly	RIFE	Pred RA	क्स	RT Flag	Pred.RFG	RRT	Conc	%Rec	SPD out
4	1 2,3,7,8-TCDD	1.32e5	1.36e6	0.80	NO	0.988	25.71	25.69	NO	1.001	1.001	9.8840	98.8	NO
2	2 1,2,3,7,8-PeCDD	4.98e5	1.08e6	0.63	NO	0.972	30.64	30.64	NO	1.001	1.000	47.291	94.6	NO
2 3	3 1,2,3,4,7,8-HxCDD	4.84e5	8.99e5	1.23	NO	1.07	33.99	33.99	NO	1.000	1.000	50.303	101	NO
4	4 1,2,3,6,7,8-HxCDD	4.78e5	1.07e6	1.22	NO	0.921	34.07	34.09	NO	1.000	1.001	48.291	96.6	NO
5	5 1,2,3,7,8,9-HxCDD	4.64e5	1.02e6	1.22	NO	0.918	34.39	34.37	NO	1.001	1.000	49.500	99.0	NO
8	6 1,2,3,4,6,7,8-HpCDD	3.76e5	8.41e5	1.03	NO	0.923	37.91	37.91	NO	1.000	1.000	48.425	96.8	NO
7	7 OCDD	7.60e5	1.62e6	88.0	NO	0.975	40.90	40.91	NO	1.000	1.000	96.383	96.4	NO
8	8 2,3,7,8-TCDF	1.54e5	1.92e6	0.74	NO	0.802	24.82	24.82	NO	1.001	1.001	10.002	100	NO
9	9 1,2,3,7,8-PeCDF	7.60e5	1.66e6	1.52	NO	0.907	29.36	29.35	NO	1.001	1.001	50.335	101	NO
10	10 2,3,4,7,8-PeCDF	7.70e5	1.62 e 6	1.54	NO	0.952	30.35	30.33	NO	1.001	1.000	49.866	99.7	NO
11	11 1,2,3,4,7,8-HxCDF	5.11e5	1.17e6	1.18	NO	0.862	33.11	33.13	NO	1.000	1.000	50.853	102	NO
12	12 1,2,3,6,7,8-HxCDF	5.46e5	1.25e6	1.18	NO	0.841	33.24	33.24	NO	1.000	1.000	51.737	103	NO
13	13 2,3,4,6,7,8-HxCDF	5.32e5	1.1 6e 6	1.17	NO	0.898	33.84	33.82	NO	1.001	1.000	51.139	102	NO
14	14 1,2,3,7,8,9-HxCDF	4.40e5	1.01 e 6	1.19	NO	0.858	34.71	34.72	NO	1.000	1.000	50.675	101	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.83e5	8.89e5	0.99	NO	0.851	36.49	36.48	NO	1.001	1.001	50.637	101	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.27e5	6.47e5	0.99	NO	0.980	38.49	38.50	NO	1.000	1.000	51.641	103	NO
17	17 OCDF	7.32e5	1.83e6	0.86	NO	0.806	41.09	41.10	NO	1.000	1.000	99.333	99.3	NO
16	18 13C-2,3,7,8-TCDD	1.36e6	1.1 4e6	0.78	NO	1.20	25.68	25.67	NO	1.026	1.026	99.137	99.1	NO
19	19 13C-1,2,3,7,8-PeCDD	1.08e6	1.14e6	0.65	NO	0.967	30.41	30.62	NO	1.215	1.223	98.148	98.1	NO
20	20 13C-1,2,3,4,7,8-HxCDD	8.99e5	1.09e6	1.27	NO	0.874	33.98	33.98	NO	1.014	1.014	94.278	94.3	NO
	21 13C-1,2,3,6,7,8-HxCDD	1.07e6	1.09e6	1.27	NO	1.05	34.08	34.07	NO	1.017	1.017	94.128	94.1	NO
	22 13C-1,2,3,7,8,9-HxCDD	1.02e6	1.09e6	1.25	NO	0.974	34.38	34.36	NO	1.026	1.025	96.039	96.0	NO
33	23 13C-1,2,3,4,6,7,8-HpCDD	8.41e5	1. 09e6	1.05	NO	0.747	37.93	37.90	NO	1.132	1.131	103.19	103	NO
	24 13C-OCDD	1.62e6	1.09e6	0.89	NO	0.707	40.81	40.90	NO	1.218	1.221	209.92	105	NO
	25 13C-2,3,7,8-TCDF	1.92e6	1. 80e 6	0.77	NO	1.07	24.86	24.79	NO	0.993	0.990	100.44	100	NO
	26 13C-1,2,3,7,8-PeCDF	1.66e6	1.80e6	1.57	NO	1.00	29.19	29.34	NO	1.166	1.172	92.466	92.5	NO
	[®] 27 13C-2,3,4,7,8-PeCDF	1.62e6	1. 80e 6	1.58	NO	0.962	30.14	36.32	NO	1.204	1.211	94.031	94.0	NO
	28 13C-1,2,3,4,7,8-HxCDF	1.17e6	1.09e6	0.50	NO	1.05	33.11	33.11	NO	0.988	0.988	101.84	182	NO
	29 13C-1,2,3,6,7,8-HxCDF	1.25e6	1. 09e 6	0.51	NO	1.19	33.21	33.23	NO	0.991	0.992	96.652	96.7	NO
2.2	30 13C-2,3,4,6,7,8-HxCDF	1.16e6	1. 09e 6	0.51	NO	1.07	33.81	33.81	NO	1.009	1.009	99.510	99.5	NO
	31 13C-1,2,3,7,8,9-HxCDF	1.01e6	1.09e6	0.51	NO	0.922	34.71	34.71	NO	1.036	1.036	100.59	101	NO

Work Order 1903654 Page 680 of 1184 MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\200202R2\200202R2-2.qld

Last Altered: Printed: Monday, February 03, 2020 11:02:50 Pacific Standard Time

Monday, February 03, 2020 11:03:05 Pacific Standard Time

Name: 200202R2_2, Date: 02-Feb-2020, Time: 23:04:08, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	Mane	Ridap	IS Resp	RIA	nly	CARSE	FredRIT	स	RT Plag	Prod.FORT	RRT	Conc.	%Nec	STEAM
	32 13C-1,2,3,4,6,7,8-HpCDF	8.89e5	1.09e6	0.44	NO	0.767	36.46	36.46	NO	1.088	1.088	106.29	106	NO
3	33 13C-1,2,3,4,7,8,9-HpCDF	6.47e5	1.09e6	0.43	NO	0.552	38.47	38.49	NO	1.148	1.149	107.34	107	NO
34 6 36	34 13C-OCDF	1.83e6	1.09e6	88.0	NO	0.789	41.05	41.09	NO	1.225	1.226	212.60	106	NO
35	35 37CI-2,3,7,8-TCDD	1.38e5	1.14 e 6			1.18	25.71	25.69	NO	1.027	1.026	10.310	103	NO
36	36 13C-1,2,3,4-TCDD	1.1 4e 6	1.14e6	0.80	NO	1.00	25.08	25.03	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.80e6	1.80e6	0.79	NO	1.00	23.42	23.37	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	1.09e6	1.09e6	0.51	NO	1.00	33.52	33.51	NO	1.000	1.000	100.00	100	YES#
39	39 Total Tetra-Dioxins		1.36e6			0.988	24.62		NO	0.000		85.288		NO
48	40 Total Penta-Dioxins		1.08e6			0.972	29.96		NO	0.000		207.96		NO
41	41 Total Hexa-Dioxins		0.00e0			0.921	33.63		NO	0.000		244.66		NO !
42	42 Total Hepta-Dioxins		8.41e5			0.923	37.64		NO	0.000		128.97		NO
43	43 Total Tetra-Furans		1.92e6			0.802	23.61		NO	0.000		46.365		NO
44	44 1st Func. Penta-Furans		0.00e0			0.907	27.09		NO	0.000				NO
45	45 Total Penta-Furans		0.00e0			0.907	29.27		NO	0.000		174.20		NO
46	46 Total Hexa-Furans		0.00e0			0.898	33.56		NO	0.000		284.14		NO
47	47 Total Hepta-Furans		0.00e0			0.851	37.83		NO	0.000		102.28		NO_

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MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

Untitled

Last Altered: Printed: Monday, February 03, 2020 10:47:25 Pacific Standard Time Monday, February 03, 2020 10:47:37 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 23 Jan 2020 15:01:26

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200202R2_2, Date: 02-Feb-2020, Time: 23:04:08, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	4 Warre	Ri
1 1	1 1,3,6,8-TCDD (First)	21.72
2	2 1,2,8,9-TCDD (Last)	26.65
3	3 1,2,4,7,9-PeCDD (First)	28.42
4	4 1,2,3,8,9-PeCOD (Last)	31.02
5	5 1,2,4,6,7,9-HxCDD (First)	32.51
6	6 1,2,3,7,8,9-HxCDD (Last)	34.37
7	7 1,2,3,4,6,7,9-HpCDD (First)	36.86
8	8 1,2,3,4,6,7,8-HpCDD (Last)	37.91
9	9 1,3,6,8-TCDF (First)	19.63
10	10 1,2,8,9-TCDF (Last)	26.80
11	11 1,3,4,6,8-PeCDF (First)	26.77
12	12 1,2,3,8,9-PeCDF (Last)	31.26
13	13 1,2,3,4,6,8-HxCDF (First)	31.95
14	14 1,2,3,7,8,9-HxCDF (Last)	34.72
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.48
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.50

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Quantify Compound Summary Report

MassLynx 4.1 SCN815

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Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

Monday, February 03, 2020 10:51:13 Pacific Standard Time Monday, February 03, 2020 10:51:19 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

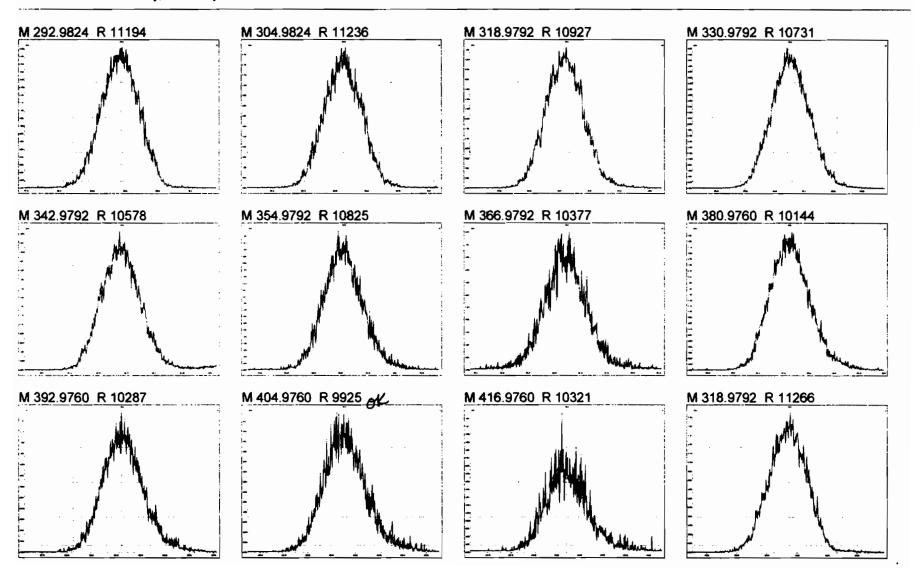
Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Compound name: 2,3,7,8-TCDD

	Nome	fD	Acq.Date	Acq.Time
4	200202R2_1	SOLVENT BLANK	02-Feb-20	22:17:48
2	200202R2_2	ST200202R2_1 1613 CS3 19L2305	02-Feb-20	23:04:08
3	200202R2_3	SOLVENT BLANK	02-Feb-20	23:51:05
4	200202R2_4	1903654-10 PDI-076SC-B-02-05-191013 17.48	03-Feb-20	00:38:03
5	200202R2_5	1903654-11 PDI-076SC-B-05-07-191013 16.56	03-Feb-20	01:25:04
6	200202R2_6	1903827-01 PDI-057SC-B-00-02-191023 19.01	03-Feb-20	02:12:02
7	200202R2_7	1903827-02 PDI-057SC-B-02-04-191023 18.69	03-Feb-20	02:59:07
В .	200202R2_8	1903827-03 PDI-057SC-B-04-06-191023 17.03	03-Feb-20	03:46:08
9	200202R2_9	1903827-04 PDI-057SC-B-06-08-191023 17.29	03-Feb-20	04:33:07
10	200202R2_10	1903827-05 PDI-062SC-B-00-02-191023 17.51	03-Feb-20	05:20:13
11	200202R2_11	1903827-06 PDI-062SC-B-02-04-191023 17.49	03-Feb-20	06:07:13
12	200202R2_12	1903827-07 PDI-062SC-B-04-06-191023 16.2	03-Feb-20	06:54:13
13	200202R2_13	1903827-08 PDI-062SC-B-06-08-191023 14.01	03-Feb-20	07:41:13
14	200202R2_14	SOLVENT BLANK	03-Feb-20	08:37:05

Work Order 1903654 Page 683 of 1184

Sunday, February 02, 2020 22:17:46 Pacific Standard Time

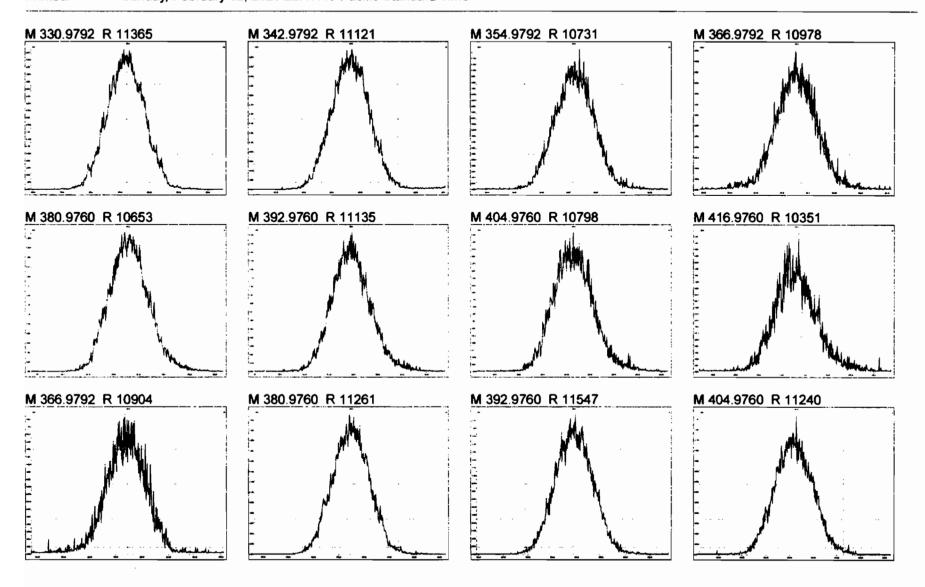


Page 1 of 4

Work Order 1903654 Page 684 of 1184

Printed:

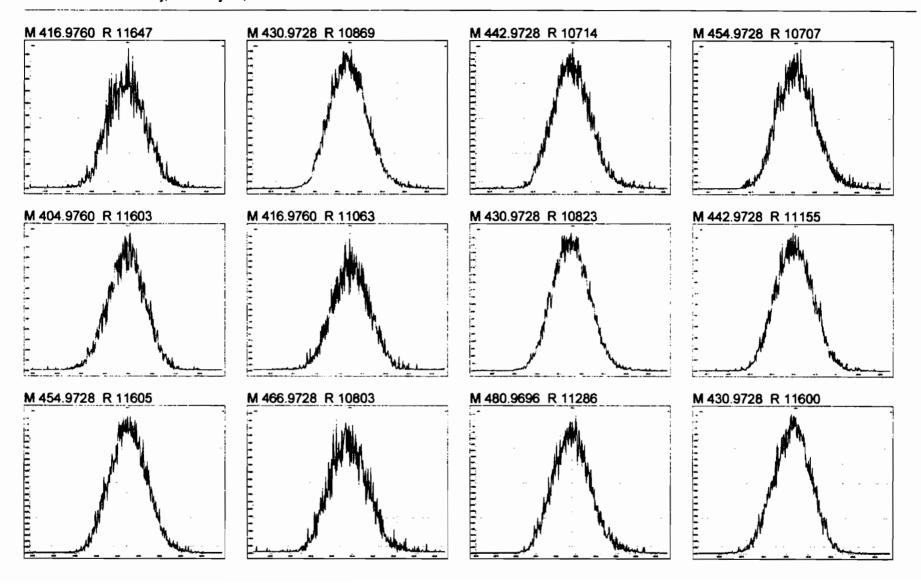
Sunday, February 02, 2020 22:17:46 Pacific Standard Time



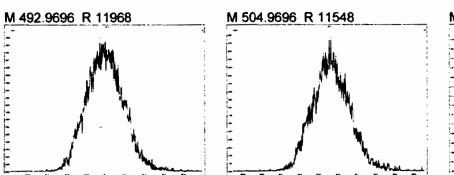
Work Order 1903654 Page 685 of 1184

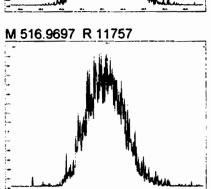
Printed:

Sunday, February 02, 2020 22:17:46 Pacific Standard Time



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25.70

25.80

25.90

26.00

26.10

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25.50

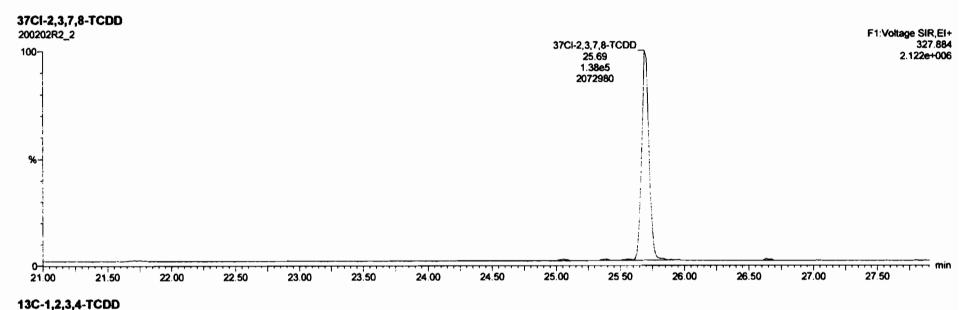
Work Order 1903654 Page 689 of 1184

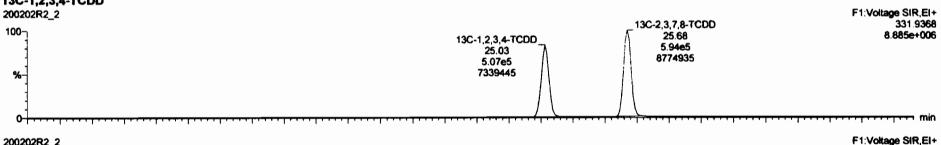
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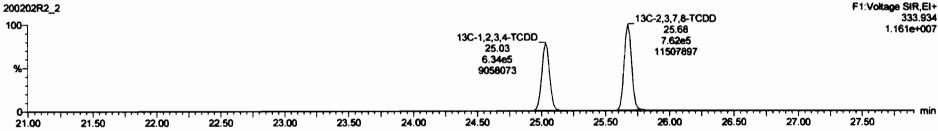
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Monday, February 03, 2020 10:47:02 Pacific Standard Time Monday, February 03, 2020 10:47:05 Pacific Standard Time

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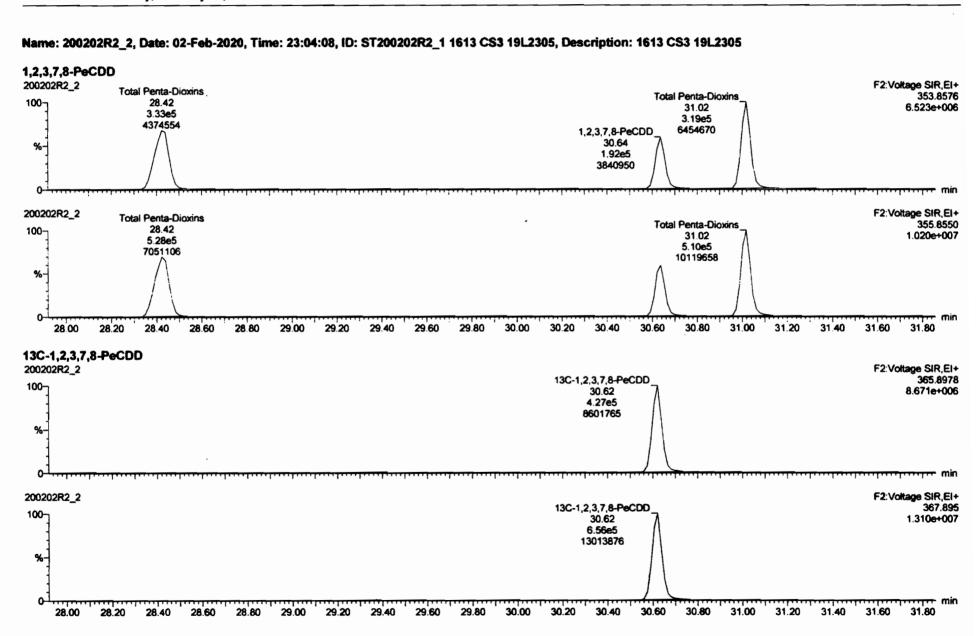




Untitled

Last Altered: Printed:

Monday, February 03, 2020 10:47:02 Pacific Standard Time Monday, February 03, 2020 10:47:05 Pacific Standard Time



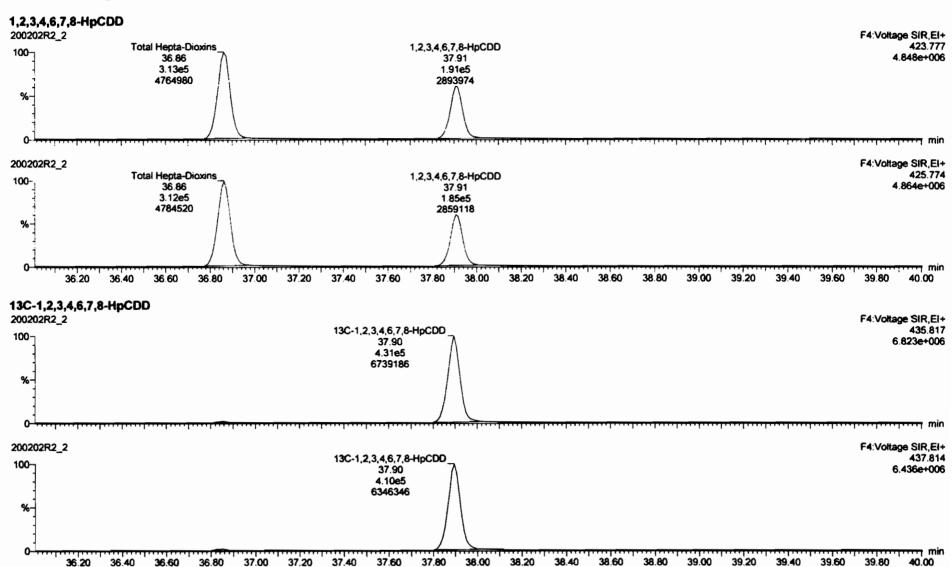
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Untitled

Last Altered:

Monday, February 03, 2020 10:47:02 Pacific Standard Time Monday, February 03, 2020 10:47:05 Pacific Standard Time

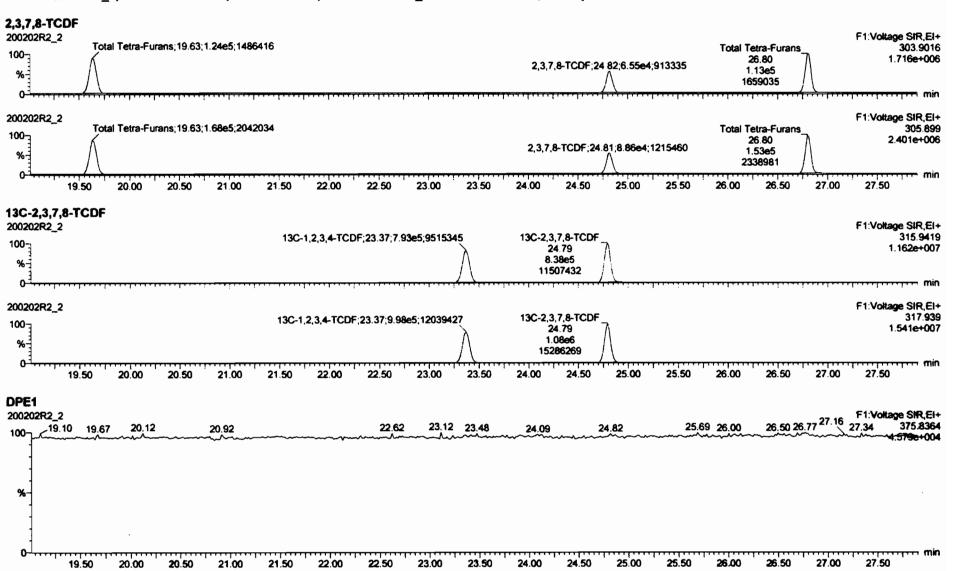
Name: 200202R2_2, Date: 02-Feb-2020, Time: 23:04:06, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

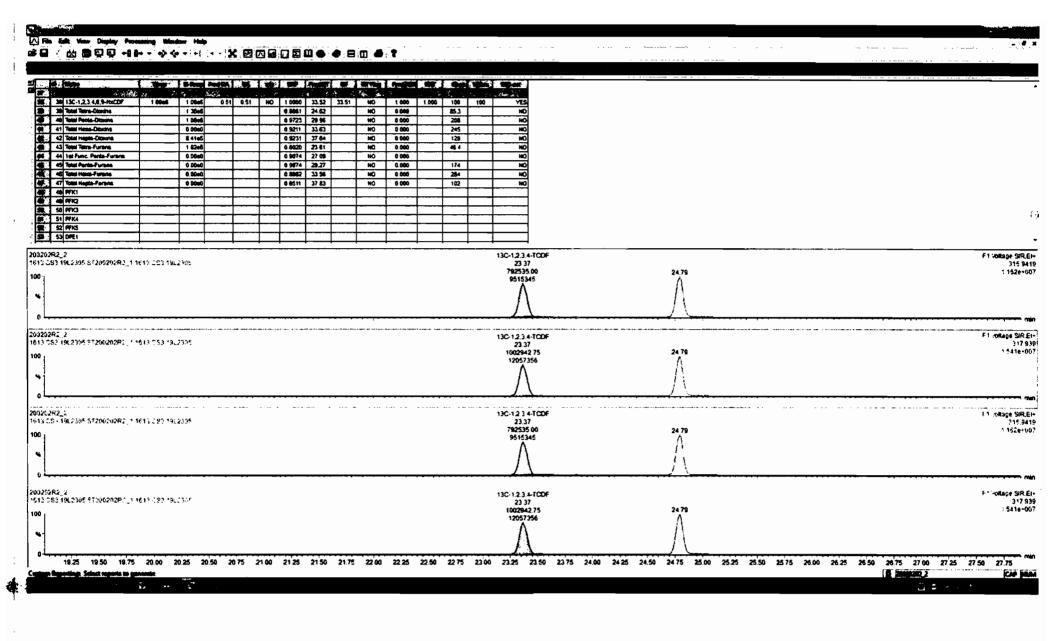


Dataset: Untitled

Last Altered: Monday, February 03, 2020 10:47:02 Pacific Standard Time Printed: Monday, February 03, 2020 10:47:05 Pacific Standard Time

Name: 200202R2 2, Date: 02-Feb-2020, Time: 23:04:08, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

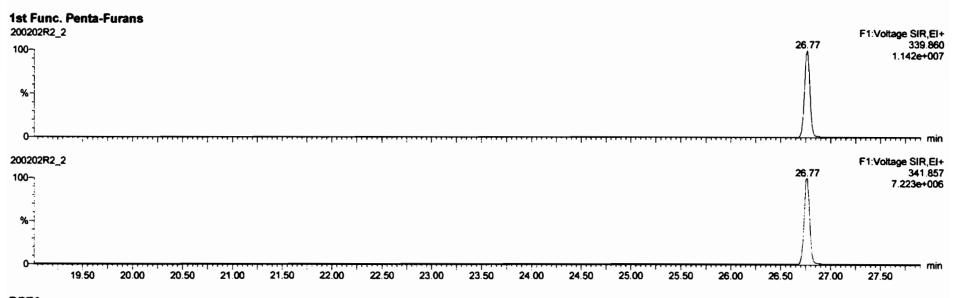


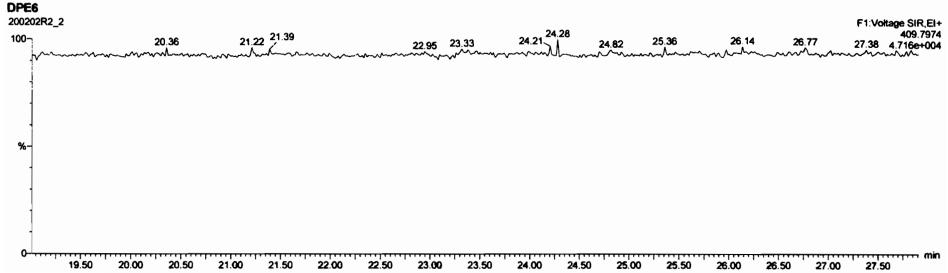


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Last Altered: Printed: Monday, February 03, 2020 10:47:02 Pacific Standard Time Monday, February 03, 2020 10:47:05 Pacific Standard Time

Name: 200202R2_2, Date: 02-Feb-2020, Time: 23:04:08, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305





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38.00

38.20

37.20

36.20

36.40

36.60

36.80

37.00

37.40

37.60

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38.60

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39.00

39.20

39.40

39.60

39.80

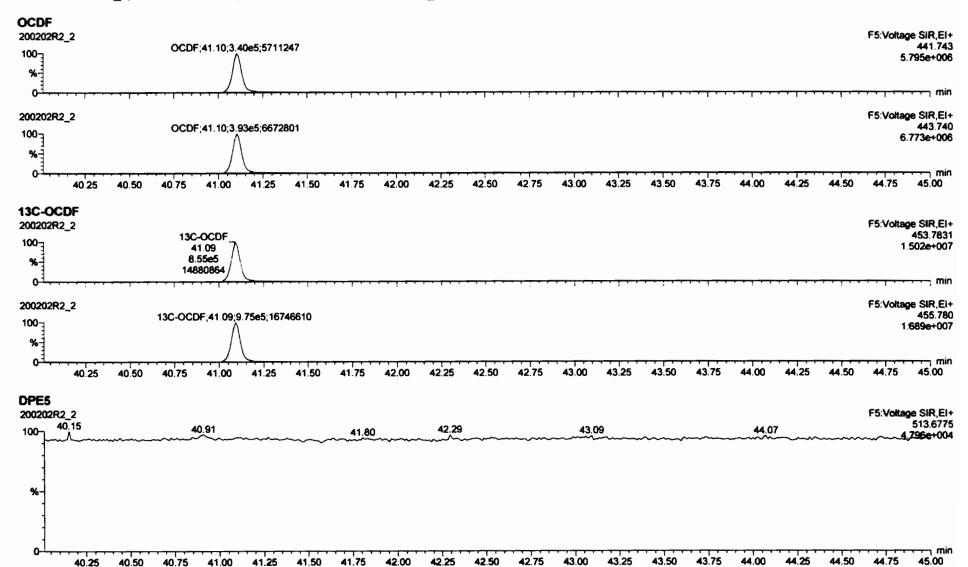
~~~ min

40.00

Untitled

Last Altered: Printed: Monday, February 03, 2020 10:47:02 Pacific Standard Time Monday, February 03, 2020 10:47:05 Pacific Standard Time

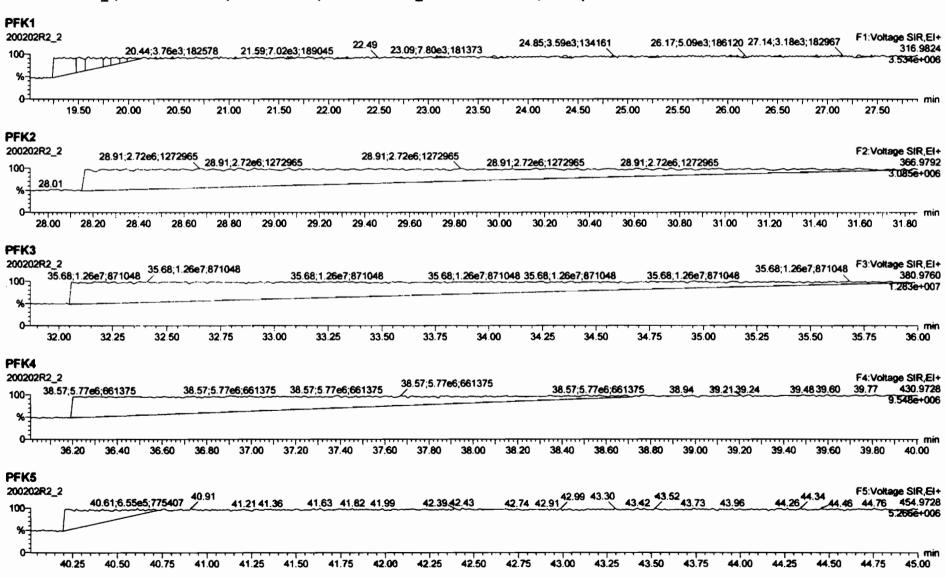
Name: 200202R2_2, Date: 02-Feb-2020, Time: 23:04:08, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Untitled

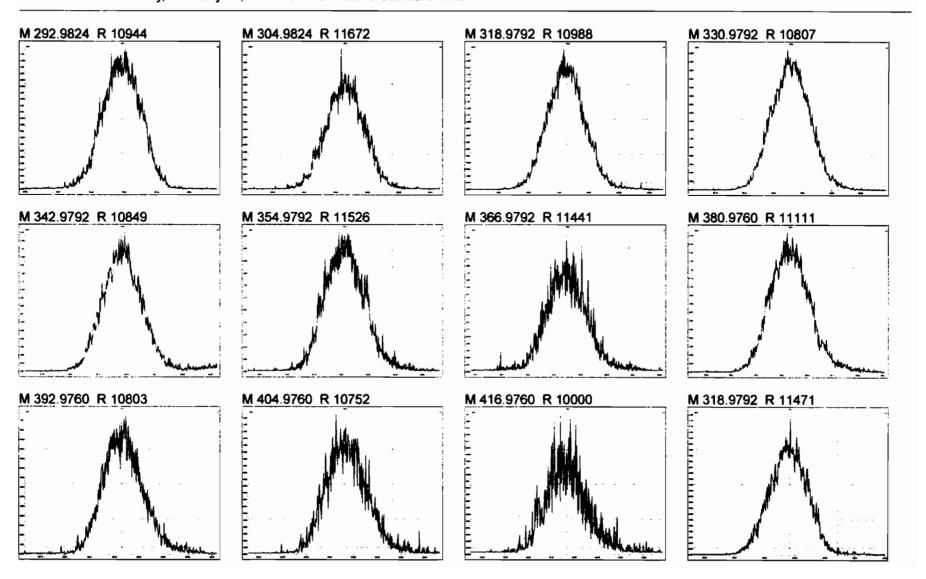
Last Altered: Printed: Monday, February 03, 2020 10:47:02 Pacific Standard Time Monday, February 03, 2020 10:47:05 Pacific Standard Time

Name: 200202R2_2, Date: 02-Feb-2020, Time: 23:04:08, ID: ST200202R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Printed:

Monday, February 03, 2020 08:37:03 Pacific Standard Time

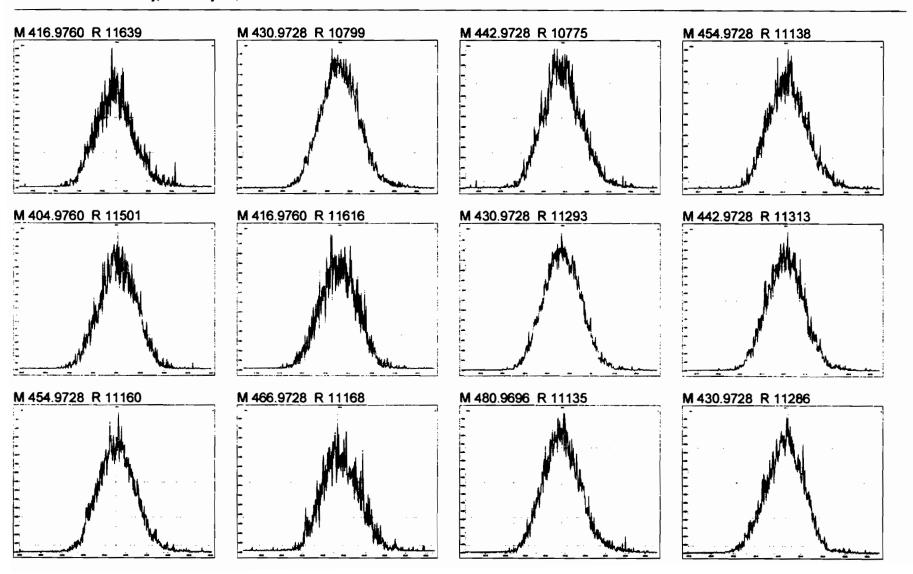


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Printed:

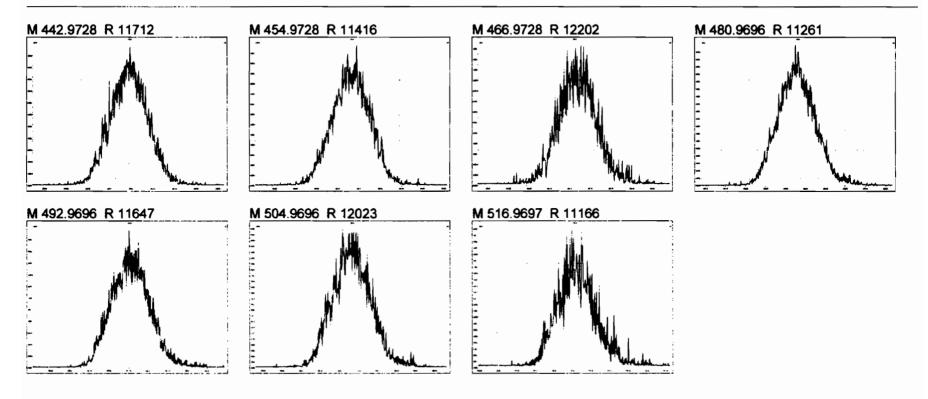
Monday, February 03, 2020 08:37:03 Pacific Standard Time



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Printed:

Monday, February 03, 2020 08:37:03 Pacific Standard Time



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HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST200203R4-1			Reviewed By: CT or/04/2020		•
End Calibration ID: NA			initials & Date		:
ion abundance within QC limits?	Beg.	End	Mass resolution >	Beg.	End
Concentrations within criteria?	I	中	□ 5k □ 6-8K □ 8K ¤10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25%	⊿	Ф	intergrated peaks display correctly?		NA
First and last eluters present?		中	GC Break <20%		:
Retention Times within criteria?		Ф	8280 CS1 End Standard:		:
Verification Std. named correctly?		中	- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		NA
(ST-Year-Month-Day-VG ID)					:
Forms signed and dated?		中	Comments:		:
Correct ICAL referenced?	GRB				:
Run Log:					:
- Correct Instrument listed?		Ţ			:
- Samples within 12 hour clock?	Y	N			:
- Bottle position verfied?	(jeb			

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Pege: 1 of 1

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Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-1.qld

Last Altered: Printed:

Monday, February 03, 2020 12:52:30 Pacific Standard Time Monday, February 03, 2020 12:55:07 Pacific Standard Time

C7 02/04/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200203R1_1, Date: 03-Feb-2020, Time: 11:58:10, ID: ST200203R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	# Name	Reap	: IS Reep	RA	ny	FREEF	Project	RT	RT Flag	Pred.RET	FRET	Conc.	%Rec	STO-out
	1 2,3,7,8-TCDD	1.41e5	1.41e6	0.77	NO	0.988	25.72	25.71	NO	1.001	1.001	10.105	101	NO
	2 1,2,3,7,8-PeCDD	4.93e5	1.08e6	0.63	NO	0.972	30.66	30.65	NO	1.001	1.001	47.018	94.0	NO
	3 1,2,3,4,7,8-HxCDD	4.34e5	8.15e5	1.22	NO	1.07	34.00	34.00	NO	1.000	1.000	49.782	99.6	NO
	4 1,2,3,6,7,8-HxCDD	4.49e5	1.02e6	1.24	NO	0.921	34.08	34.10	NO	1.000	1.001	47.706	95.4	NO
	5 1,2,3,7,8,9-HxCDD	4.14e5	9.26e5	1.20	NO	0.918	34.39	34.38	NO	1.001	1.001	48.708	97.4	NO
	6 1,2,3,4,6,7,8-HpCDD	3.11e5	6.96e5	0.99	NO	0.923	37.92	37.93	NO	1.000	1.001	48.462	96.9	NO
	7 OCDD	5.98e5	1.28e6	88.0	NO	0.975	40.92	40.93	NO	1.000	1.000	95.808	95.8	NO
	8 2,3,7,8-TCDF	1.56e5	1.95e6	0.74	NO	0.802	24.83	24.82	NO	1.001	1.001	9.9303	99.3	NO
	9 1,2,3,7,8-PeCDF	7.68e5	1.71e6	1.53	NO	0.907	29.38	29.37	NO	1.001	1.001	49.550	99.1	NO
G	10 2,3,4,7,8-PeCDF	7.68e5	1.65e6	1.51	NO	0.952	30.36	30.35	NO	1.001	1.001	48.833	97.7	NO
1	11 1,2,3,4,7,8-HxCDF	4.65e5	1.06e6	1.20	NO	0.862	33.11	33.14	NO	1.000	1.001	50.851	102	NO
2 .	12 1,2,3,6,7,8-HxCDF	5.26e5	1.20e6	1.19	NO	0.841	33.25	33.25	NO	1.000	1.000	52.153	104	NO
3 ,	13 2,3,4,6,7,8-HxCDF	4.89e5	1.07e6	1.18	NO	0.898	33.85	33.83	NO	1.001	1.000	51.118	102	NO
(14 1,2,3,7,8,9-HxCDF	3.94e5	9.19e5	1.19	NO	0.858	34.72	34.73	NO	1.000	1.000	50.046	100	NO
9	15 1,2,3,4,6,7,8-HpCDF	3.40e5	7.91e5	0.96	NO	0.851	36.51	36.49	NO	1.001	1.001	50.495	101	NO
t	16 1,2,3,4,7,8,9-HpCDF	2.77e5	5.50e5	0.96	NO	0.980	38.50	38.51	NO	1.000	1.000	51.463	103	NO
7	17 OCDF	6.08e5	1.49e6	0.87	NO	0.806	41.11	41.12	NO	1.000	1.000	101.40	101	NO
B (18 13C-2,3,7,8-TCDD	1.41e6	1.20e6	0.78	NO	1.20	25.69	25.69	NO	1.026	1.026	97.829	97.8	NO
	19 13C-1,2,3,7,8-PeCDD	1.08e6	1.20e6	0.63	NO	0.967	30.43	30.64	NO	1.215	1.223	92.868	92.9	NO
	20 13C-1,2,3,4,7,8-HxCDD	8.15e5	1.04e6	1.28	NO	0.874	33.98	33.99	NO	1.014	1.014	89.715	89.7	NO
A Santa	21 13C-1,2,3,6,7,8-HxCDD	1.02e6	1.04e6	1.29	NO	1.05	34.08	34.08	NO	1.017	1.017	93.926	93.9	NO
	22 13C-1,2,3,7,8,9-HxCDD	9.26e5	1.04e6	1.25	NO	0.974	34.38	34.36	NO	1.026	1.025	91.466	91.5	NO
£-14-1-	23 13C-1,2,3,4,6,7,8-HpCDD	6.96e5	1.04e6	1.04	NO	0.747	37.93	37.91	NO	1.132	1.131	89.661	89.7	NO
	24 13C-OCDD	1.28e6	1.04e6	0.89	NO	0.707	40.81	40.92	NO	1.218	1.221	174.42	87.2	NO
	25 13C-2,3,7,8-TCDF	1.95e6	1.84e6	0.78	NO	1.07	24.87	24.81	NO	0.993	0.990	99.503	99.5	NO
	26 13C-1,2,3,7,8-PeCDF	1.71e6	1.84e6	1.59	NO	1.00	29.20	29.35	NO	1.166	1.172	92.557	92.6	NO
	27 13C-2,3,4,7,8-PeCDF	1.65e6	1.84e6	1.54	NO	0.962	30.16	30.33	NO	1.204	1.211	93.217	93.2	NO
	28 13C-1,2,3,4,7,8-HxCDF	1.06e6	1.04e6	0.51	NO	1.05	33.11	33.11	NO	0.988	0.988	97.207	97.2	NO
	29 13C-1,2,3,6,7,8-HxCDF	1.20e6	1.04e6	0.51	NO	1.19	33.21	33.24	NO	0.991	0.992	97.000	97.0	NO
	30 13C-2,3,4,6,7,8-HxCDF	1.07e6	1.04e6	0.51	NO	1.07	33.81	33.82	NO	1.009	1.009	96.201	96.2	NO
	31 13C-1,2,3,7,8,9-HxCDF	9.19e5	1.04e6	0.51	NO	0.922	34.71	34.72	NO	1.036	1.036	95.844	95.8	NO

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Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200203R1\200203R1-1.qld

Last Altered:

Monday, February 03, 2020 12:52:30 Pacific Standard Time

Printed:

Monday, February 03, 2020 12:55:07 Pacific Standard Time

Name: 200203R1_1, Date: 03-Feb-2020, Time: 11:58:10, ID: ST200203R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	# Nome	Resp	15 Reep	RA	NY	RRF	Pred.FCT	RŦ	RT Plag	Pred.RRT	RRT	Conc.	%Flec	STDout
32	32 13C-1,2,3,4,6,7,8-HpCDF	7.91e5	1.04e6	0.43	NO	0.767	36.46	36.47	NO	1.088	1.088	99.243	99.2	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.50e5	1.0 4e 6	0.42	NO	0.552	38.47	38.50	NO	1.148	1.149	95.828	95.8	NO
8 X	34 13C-OCDF	1.49e6	1.04e6	0.87	NO	0.789	41.05	41.11	NO	1.225	1.227	181.41	90.7	NO
\$4 35	35 37CI-2,3,7,8-TCDD	1.40e5	1.20e6			1.18	25.72	25.71	NO	1.027	1.026	9.9328	99.3	NO
36	36 13C-1,2,3,4-TCDD	1.20e6	1.20e6	0.79	NO	1.00	25.08	25.05	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.8 4e 6	1.8 4e 6	0.79	NO	1.00	23.42	23.39	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	1.04e6	1.04e6	0.51	NO	1.00	33.52	33.51	NO	1.000	1.000	100.00	100	YES
39	39 Total Tetra-Dioxins		1.41e6			0.988	24.62		NO	0.000		85.135		NO
40	40 Total Penta-Dioxins		1.08e6			0.972	29.96		NO	0.000		209.86		NO
41	41 Total Hexa-Dioxins		0.00e0			0.921	33.63		NO	0.000		245.55		NO
42	42 Total Hepta-Dioxins		6.96e5			0.923	37.64		NO	0.000		133.39		NO
43	43 Total Tetra-Furans		1.95e6			0.802	23.61		NO	0.000		47.564		NO
44	44 1st Func. Penta-Furans		0.00e0			0.907	27.09		NO	0.000				NO
45	45 Total Penta-Furans		0.00e0			0.907	29.27		NO	0.000		167.68		NO
46	46 Total Hexa-Furans		0.00e0			0.898	33.56		NO	0.000		287.38		NO
47	47 Total Hepta-Furans		0.00e0			0.851	37.83		NO	0.000		101.96		NO

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Page 1 of 1

Dataset:

Untitled

Last Altered: Printed: Monday, February 03, 2020 12:55:45 Pacific Standard Time Monday, February 03, 2020 12:55:55 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 23 Jan 2020 15:01:26

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200203R1_1, Date: 03-Feb-2020, Time: 11:58:10, ID: ST200203R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

-1.	# Name	RT
1	1 1,3,6,8-TCDD (First)	21.74
2 .	2 1,2,8,9-TCDD (Last)	26.66
3	3 1,2,4,7,9-PeCDD (First)	28.44
4	4 1,2,3,8,9-PeCDD (Last)	31.03
5	5 1,2,4,6,7,9-HxCDD (First)	32.51
6	6 1,2,3,7,8,9-HxCDD (Last)	34.38
7	7 1,2,3,4,6,7,9-HpCDD (First)	36.87
8	8 1,2,3,4,6,7,8-HpCDD (Last)	37.93
9	9 1,3,6,8-TCDF (First)	19.64
10	10 1,2,8,9-TCDF (Last)	26.81
11	11 1,3,4,6,8-PeCDF (First)	26.77
12	12 1,2,3,8,9-PeCDF (Last)	31.28
13	13 1,2,3,4,6,8-HxCDF (First)	31.96
14	14 1,2,3,7,8,9-HxCDF (Last)	34.73
14 15	15 1,2,3,4,6,7,8-HpCDF (First)	36.49
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.51

Work Order 1903654 Page 710 of 1184

Quantify Compound Summary Report Vista Analytical Laboratory VG-11 MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

Untitled

Last Altered:

Tuesday, February 04, 2020 09:05:13 Pacific Standard Time

Printed:

Tuesday, February 04, 2020 09:12:56 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Compound name: 2,3,7,8-TCDD

	Name	ID	Acq.Date	Acq.Time
1	200203R1_1	ST200203R1_1 1613 CS3 19L2305	03-Feb-20	11:58:10
2	200203R1_2	B0A0027-BS1 OPR 10	03-Feb-20	12:46:00
3	200203R1_3	B0A0074-BS1 OPR 10	03-Feb-20	13:32:35
4	200203R1_4	SOLVENT BLANK	03-Feb-20	14:23:54
5	200203R1_5	80A0027-BLK1 Method Blank 10	03-Feb-20	15:10:51
6	200203R1_6	B0A0074-BLK1 Method Blank 10	03-Feb-20	15:57:49
7	200203R1_7	1903740-01 PDI-031SC-B-00-02-191017 17.45	03-Feb-20	16:44:54
8	200203R1_8	1903740-02 PDI-031SC-B-02-04-191017 15.52	03-Feb-20	17:31:54
9	200203R1_9	1903740-03 PDI-031SC-B-04-06-191017 11.79	03-Feb-20	18:18:50
10	200203R1_10	1903740-04 PDI-031SC-B-06-08-191017 12.8	03-Feb-20	19:05:46
11	200203R1_11	1903654-07@2X PDI-075SC-B-04-06-191013	. 03-Feb-20	19:52:45
12	200203R1_12	80A0056-DUP1@10X Duplicate 16.6	03-Feb-20	20:39:45
13	200203R1_13	1903827-01@5X PDI-057SC-B-00-02-191023	03-Feb-20	21:26:43
14	200203R1_14	1903654-01@5X PDI-073SC-B-00-02-191013	. 03-Feb-20	22:13:42
15	200203R1_15	1903654-01@25X PDI-073SC-B-00-02-19101	03-Feb-20	23:00:42

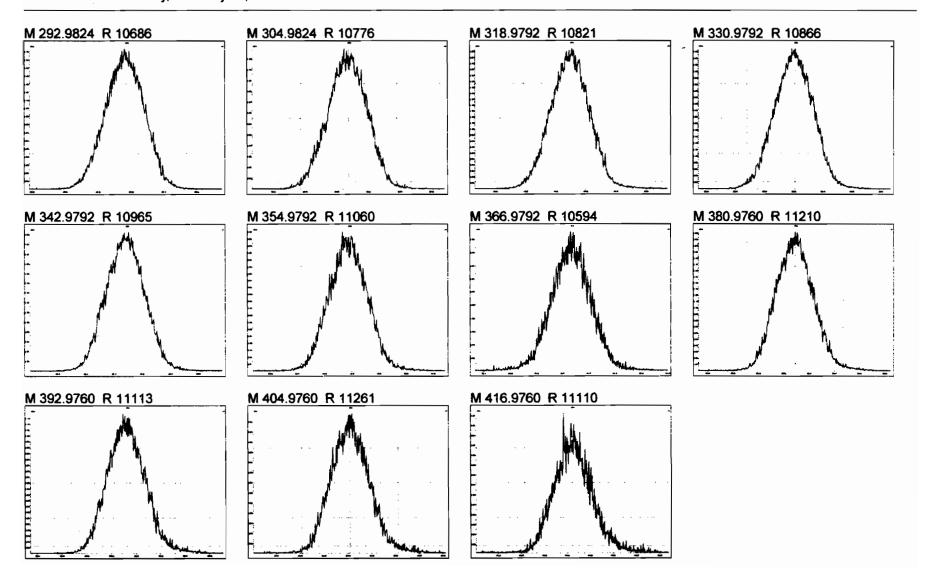
Work Order 1903654 Page 711 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

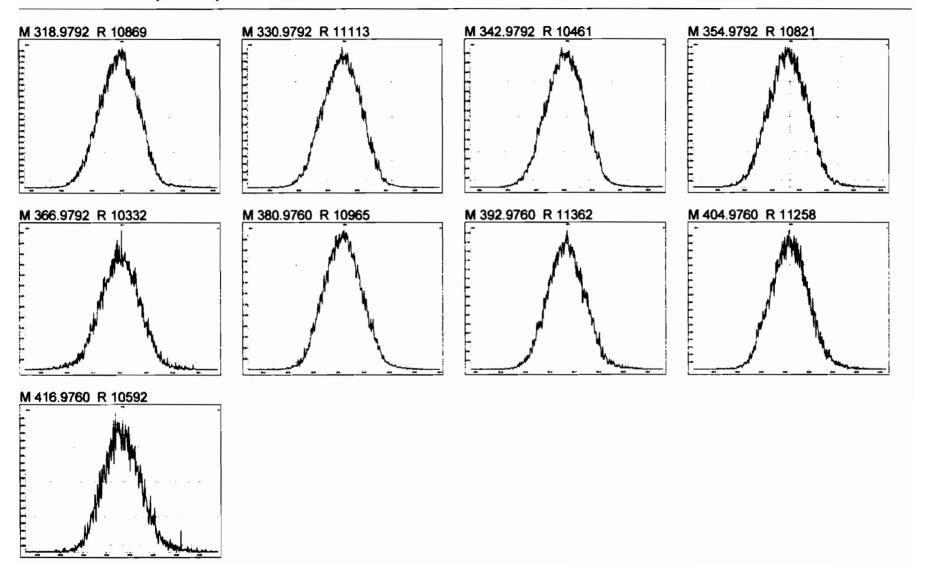
Monday, February 03, 2020 11:52:54 Pacific Standard Time



Work Order 1903654 Page 712 of 1184

File: Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Monday, February 03, 2020 11:53:42 Pacific Standard Time



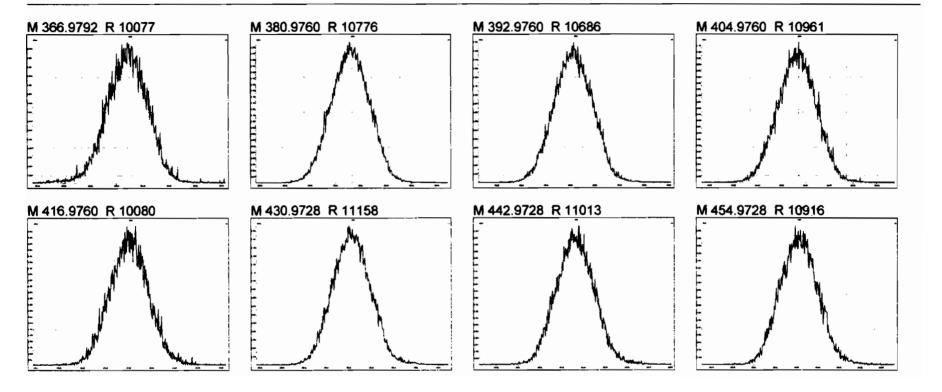
Work Order 1903654 Page 713 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed:

Monday, February 03, 2020 11:55:02 Pacific Standard Time



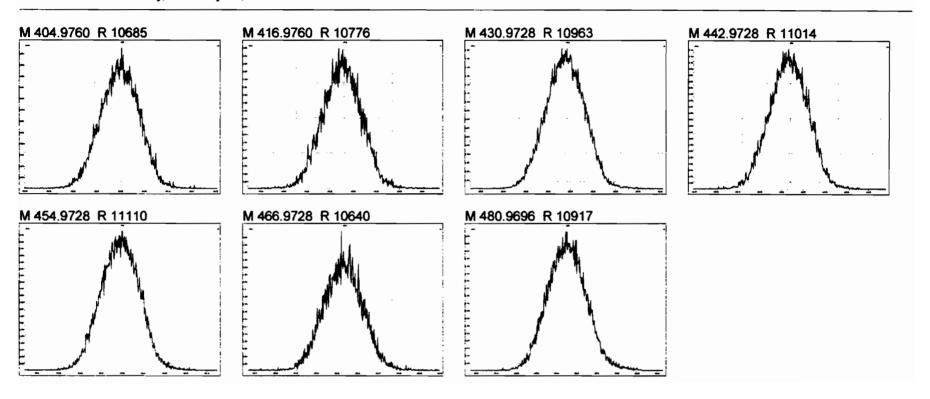
Work Order 1903654 Page 714 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed:

Monday, February 03, 2020 11:55:32 Pacific Standard Time



Work Order 1903654 Page 715 of 1184

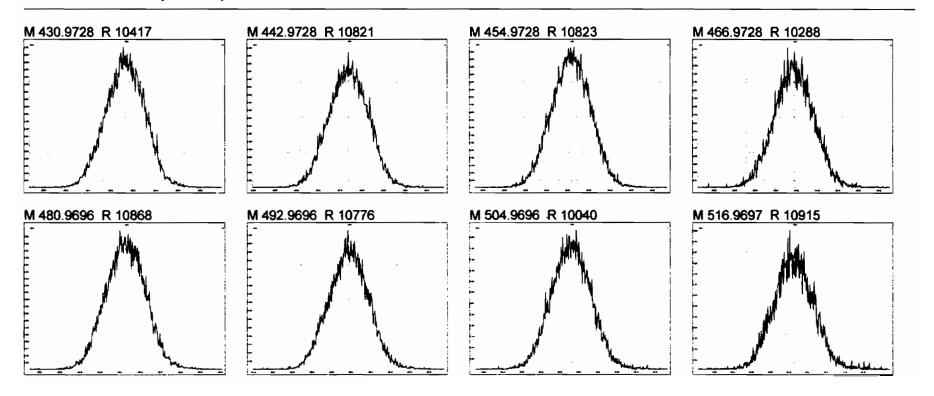
Page 1 of 1

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Monday, February 03, 2020 11:57:21 Pacific Standard Time



Work Order 1903654 Page 716 of 1184

Quantify Sample Report

MassLvnx 4.1 SCN815

Page 1 of 1

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered Printed:

Monday, February 03, 2020 12:55:45 Pacific Standard Time

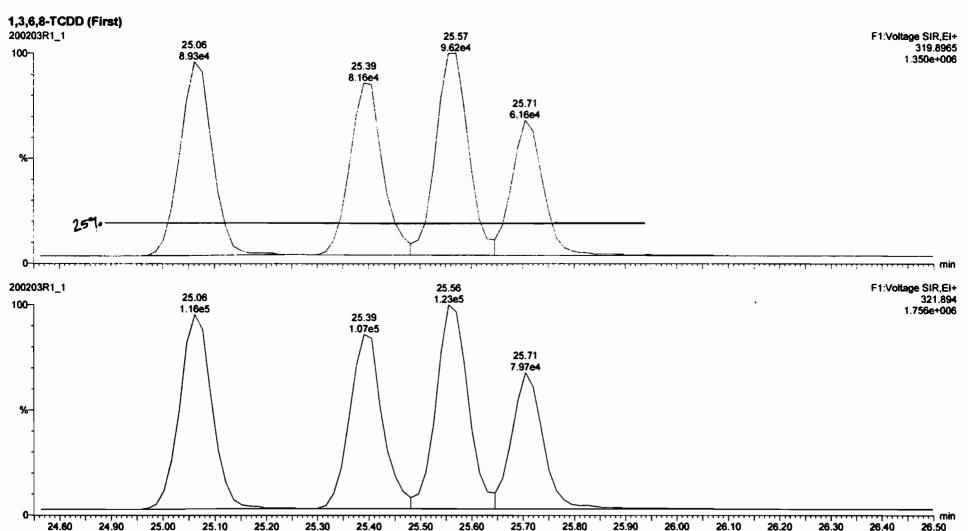
Monday, February 03, 2020 12:55:55 Pacific Standard Time

GRB 02/03/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 23.Jan 2020 15:01:26

Calibration: U:\VG12.PRO\CurveDB\db5 1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

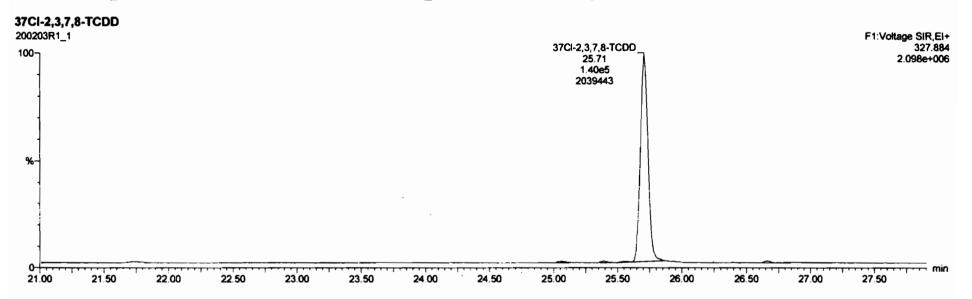
Name: 200203R1 1, Date: 03-Feb-2020, Time: 11:58:10, ID: ST200203R1 1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

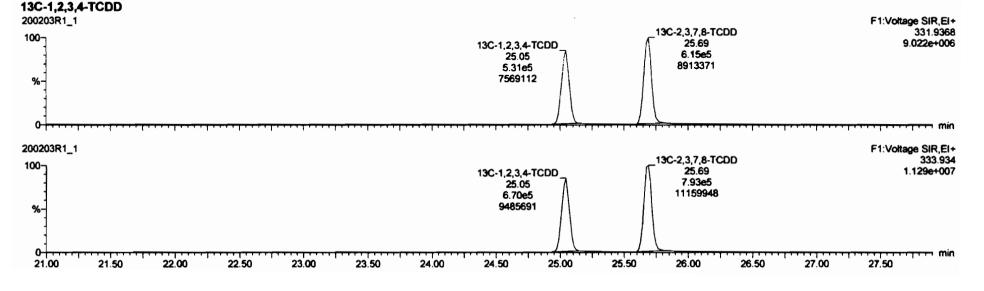


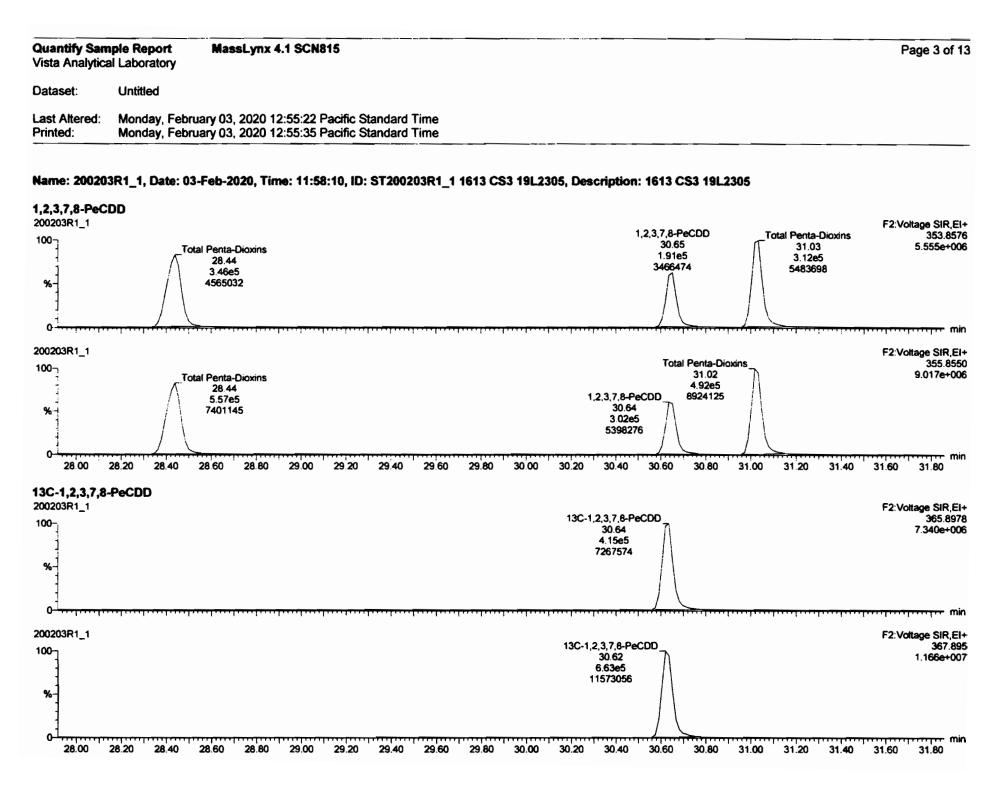
Untitled

Last Altered: Printed: Monday, February 03, 2020 12:55:22 Pacific Standard Time Monday, February 03, 2020 12:55:35 Pacific Standard Time

Name: 200203R1_1, Date: 03-Feb-2020, Time: 11:58:10, ID: ST200203R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305





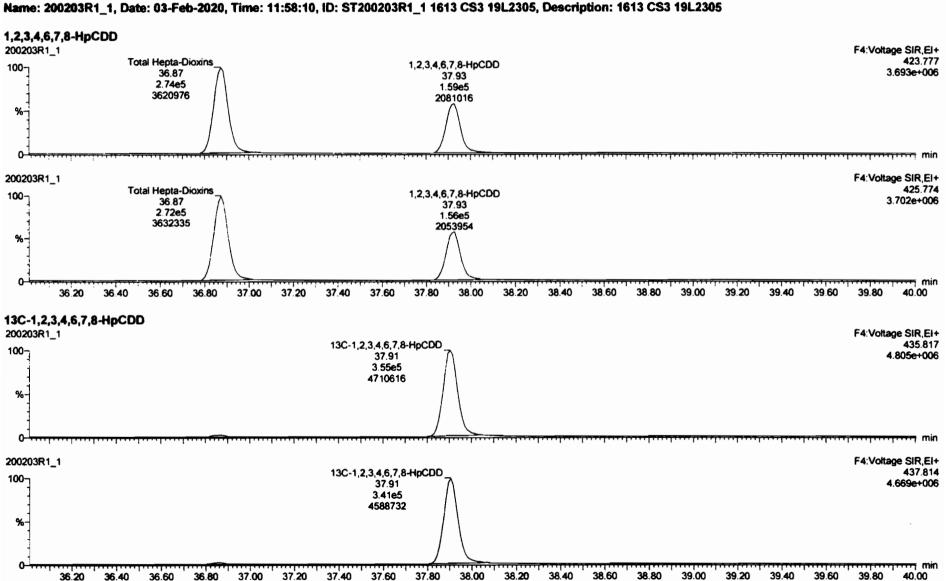


Work Order 1903654 Page 720 of 1184

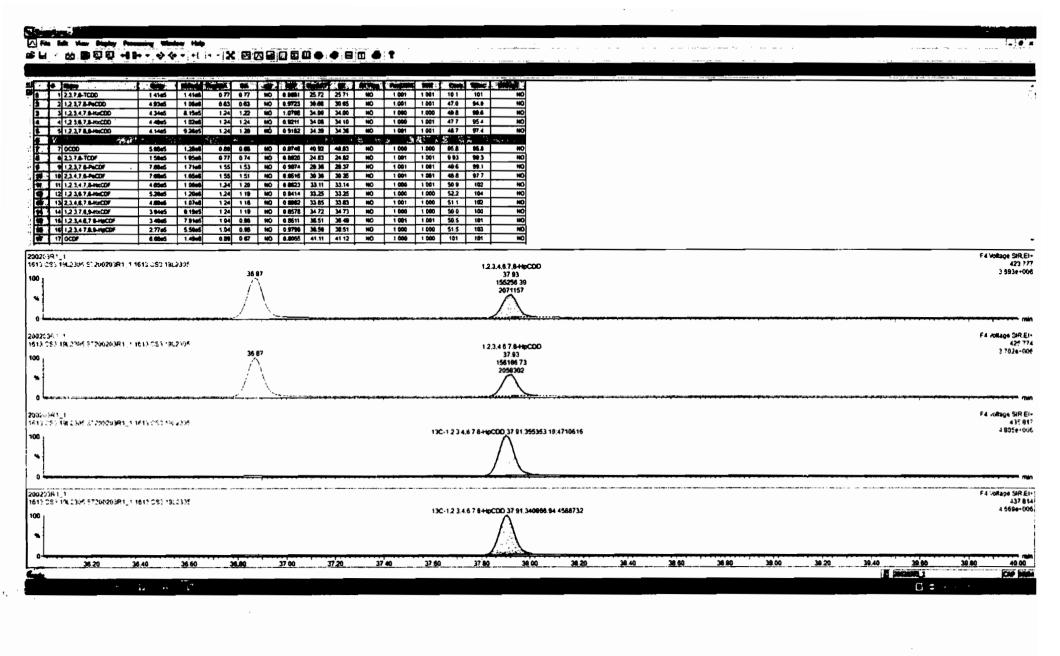
Name: 200203D4 4 Date: 02 Eat 2020 Time: 44:50:40 ID: 6T200202D4 4 4642 C62 401 2205 Decembrion: 4642 C62 401 2205

Monday, February 03, 2020 12:55:35 Pacific Standard Time

Printed:



Work Order 1903654 Page 722 of 1184



Work Order 1903654 Page 723 of 1184

Dataset:

Untitled

Last Altered: Printed:

Monday, February 03, 2020 12:55:22 Pacific Standard Time Monday, February 03, 2020 12:55:35 Pacific Standard Time

41.00

41.20

41.40

41.60

41.80

42.00

42.20

42.40

42.60

42.80

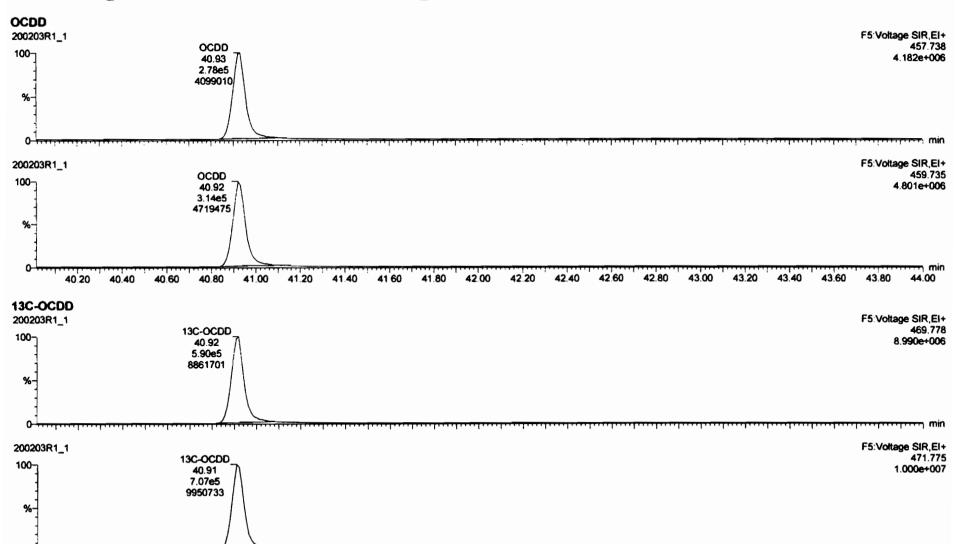
43.00

43.20

43.40

43.60





40.20

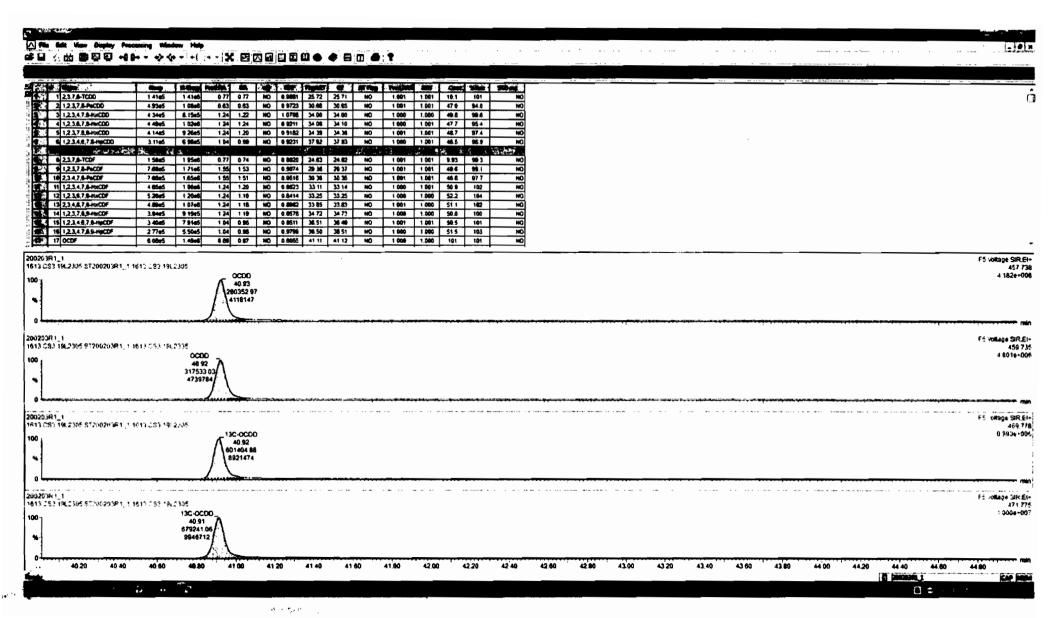
40.40

40.60

40.80

43.80

44.00

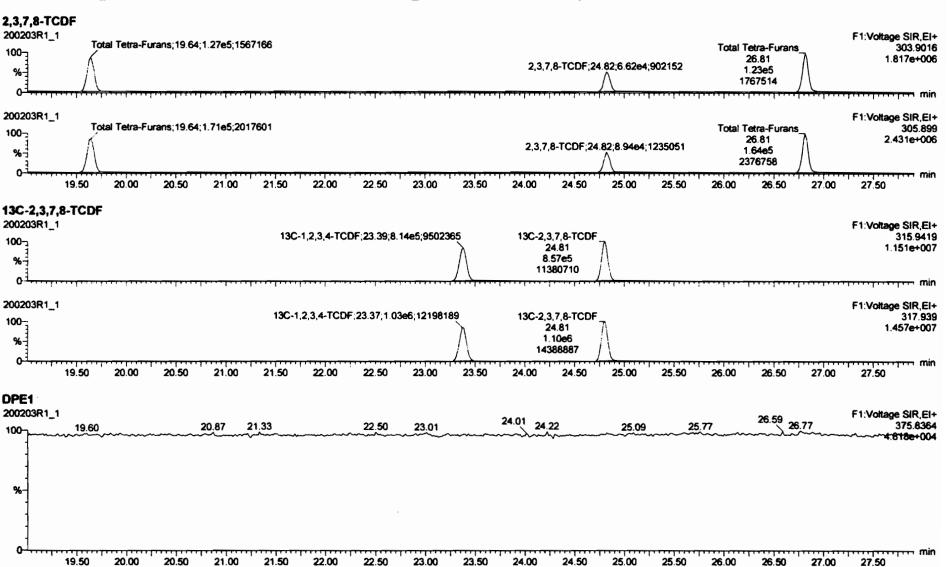


Work Order 1903654 Page 725 of 1184

Name: 200203R1_1, Date: 03-Feb-2020, Time: 11:58:10, ID: ST200203R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

Monday, February 03, 2020 12:55:35 Pacific Standard Time

Printed:



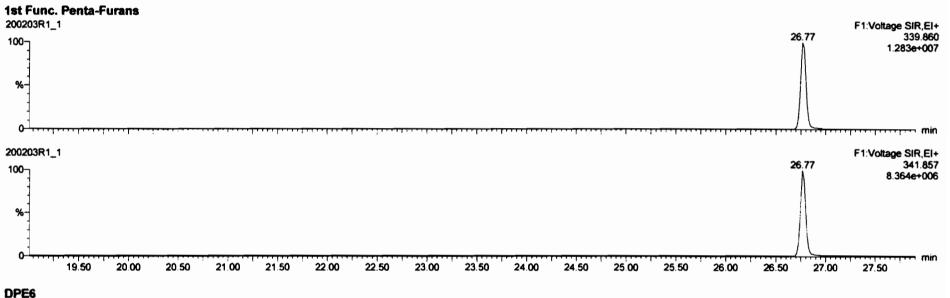
Dataset:

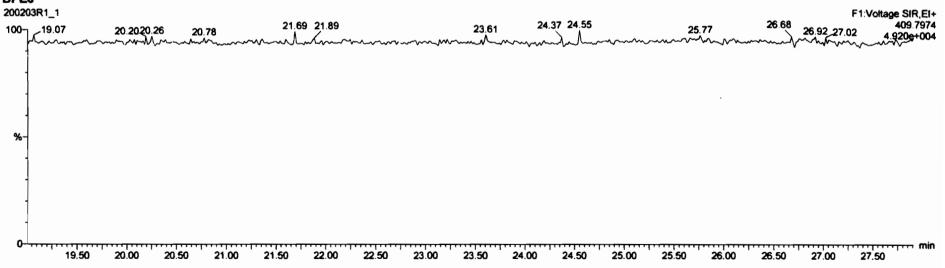
Untitled

Last Altered: Printed:

Monday, February 03, 2020 12:55:22 Pacific Standard Time Monday, February 03, 2020 12:55:35 Pacific Standard Time

Name: 200203R1_1, Date: 03-Feb-2020, Time: 11:58:10, ID: ST200203R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305





30.00

30.20

30.40

30.60

30.80

31.00

31.20

31.40

31.60

31.80

29.80

28.00

28.20

28.40

28.60

28.80

29.00

29.20

29.40

29.60

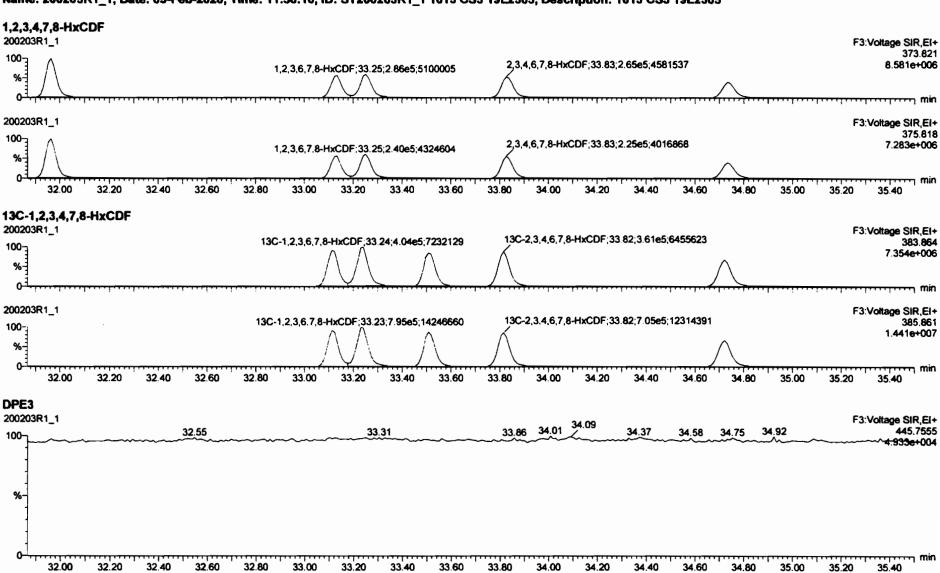
Dataset:

Untitled

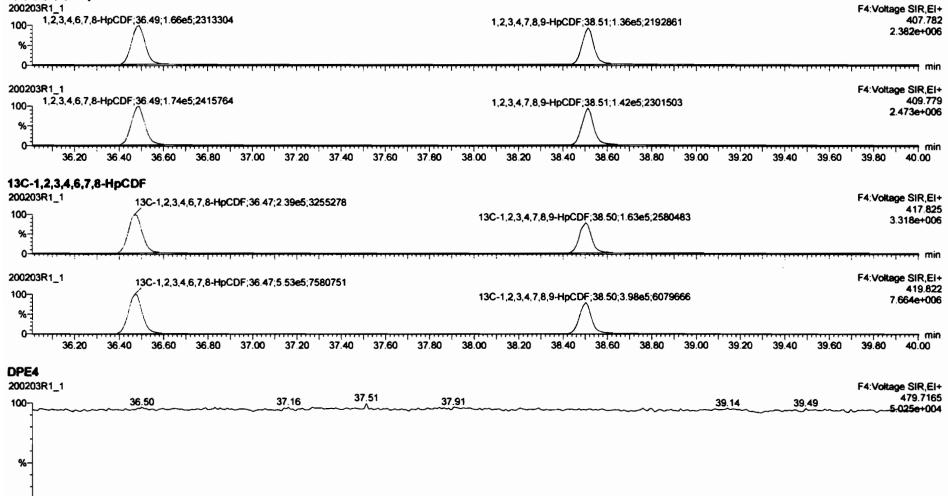
Last Aftered: Printed:

Monday, February 03, 2020 12:55:22 Pacific Standard Time Monday, February 03, 2020 12:55:35 Pacific Standard Time





Work Order 1903654



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38.00

38.20

38.40

38.60

38.80

39.00

39.20

39.40

39.60

39.80

40.00

36.40

36.20

36.60

36.80

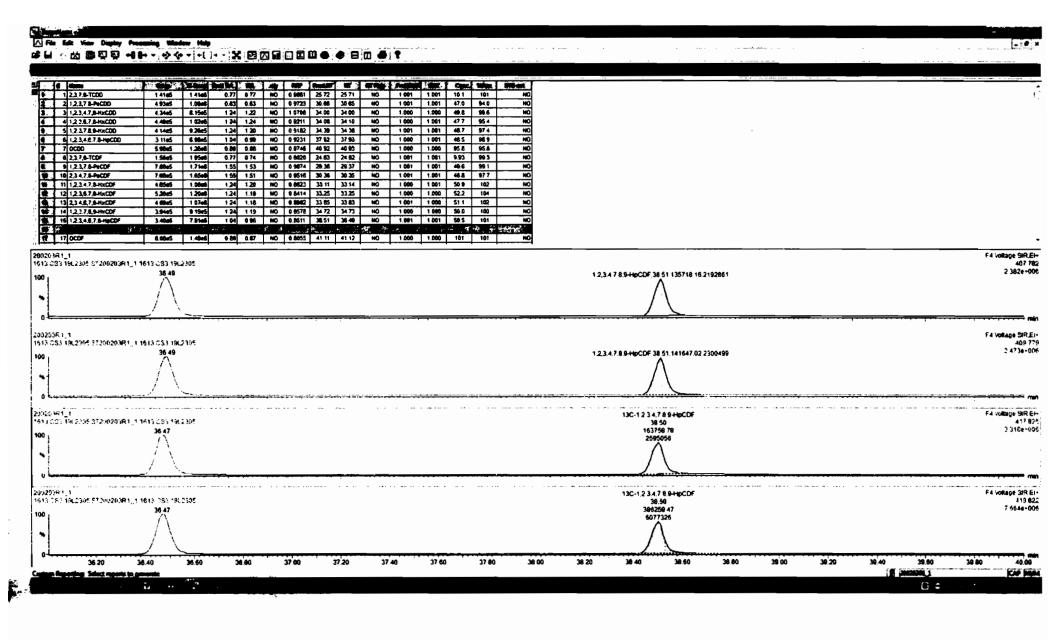
37.00

37.20

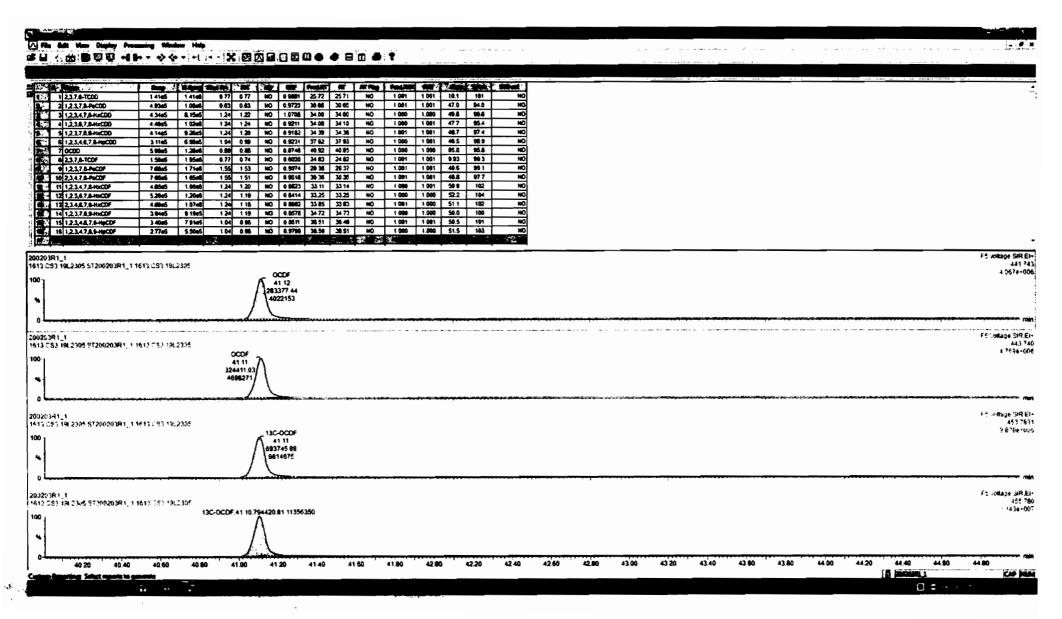
37.40

37.60

37.80



Work Order 1903654 Page 731 of 1184



Work Order 1903654 Page 733 of 1184

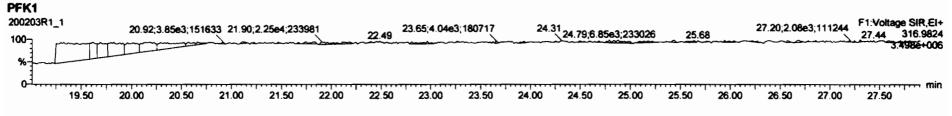
Dataset:

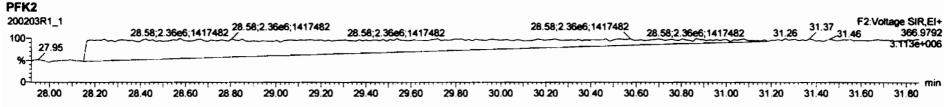
Untitled

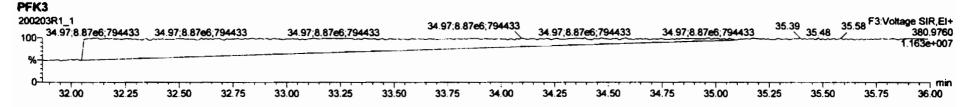
Last Altered: Printed:

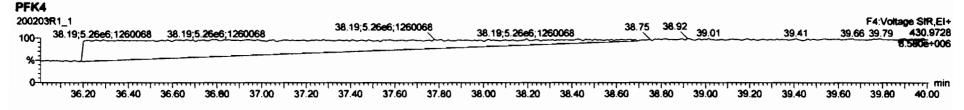
Monday, February 03, 2020 12:55:22 Pacific Standard Time Monday, February 03, 2020 12:55:35 Pacific Standard Time

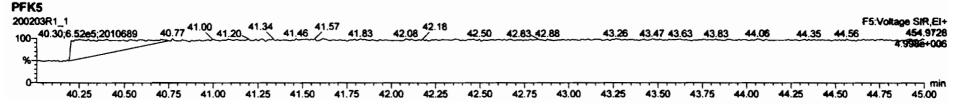




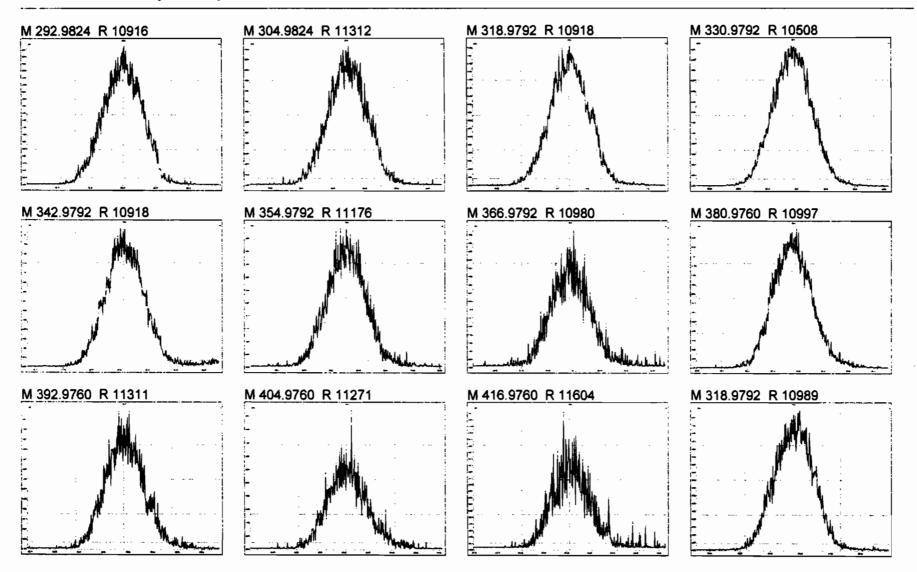






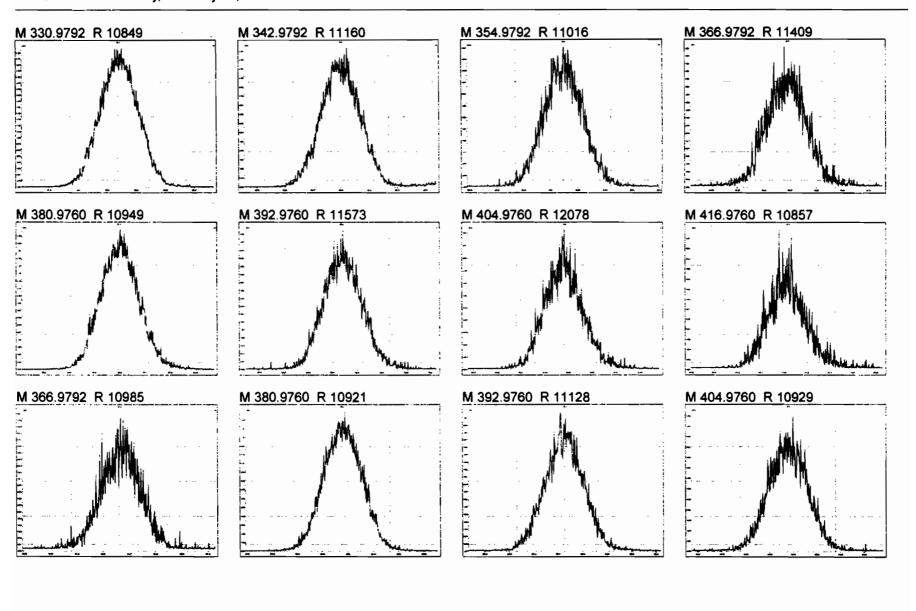


Monday, February 03, 2020 23:56:34 Pacific Standard Time



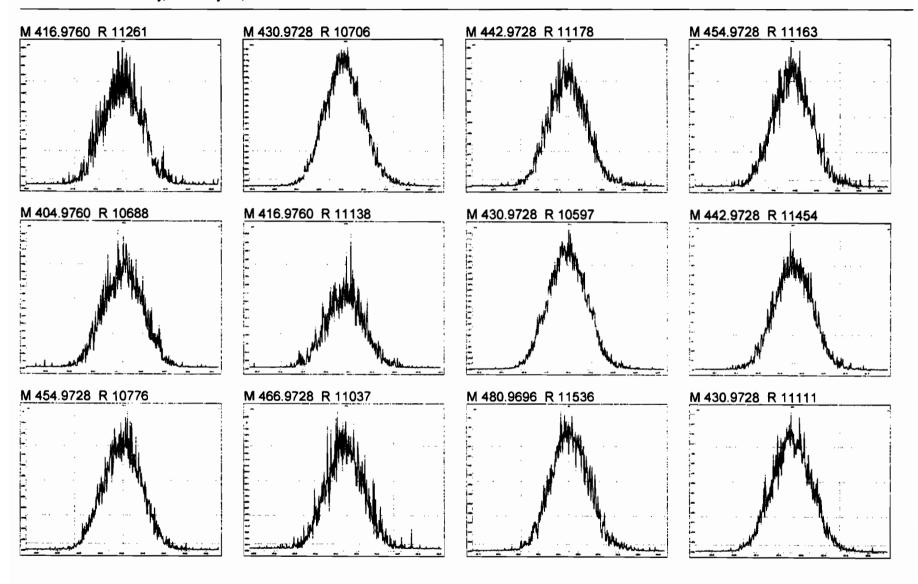
Work Order 1903654 Page 735 of 1184

Monday, February 03, 2020 23:56:34 Pacific Standard Time



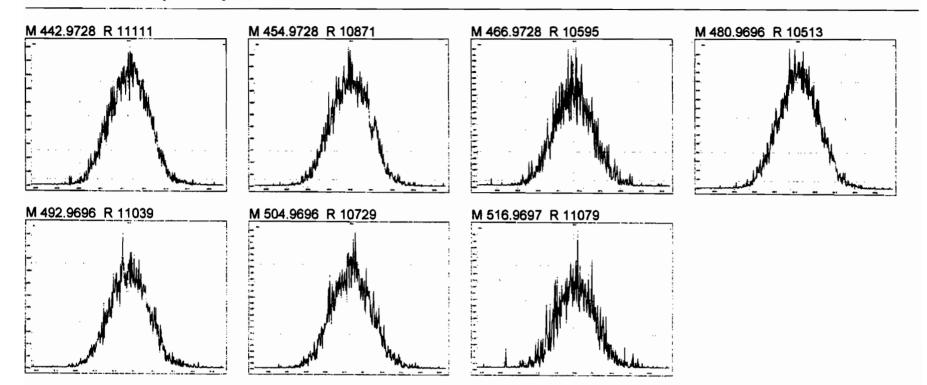
Work Order 1903654 Page 736 of 1184

Monday, February 03, 2020 23:56:34 Pacific Standard Time



Work Order 1903654 Page 737 of 1184

Monday, February 03, 2020 23:56:34 Pacific Standard Time



Work Order 1903654 Page 738 of 1184

HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST200311F3-1		ı	Reviewed By: <u>C7 以りレフのマン</u>	_	
			Initials & Date		
End Calibration ID:NA					
	Beg.	End		Beg.	End
Ion abundance within QC limits?	\checkmark	NA	Mass resolution ≥	~	
Concentrations within criteria?		ф	□ 5k □ 6-8K □ 8K 👳 10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25%			Intergrated peaks display correctly?		NA
First and last eluters present?	/		GC Break <20%		
Retention Times within criteria?			8280 CS1 End Standard:		
Verification Std. named correctly?		Ф	- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		NA
(ST-Year-Month-Day-VG ID)					
Forms signed and dated?		Ф	Comments:		
Correct ICAL referenced?	GRB				
Run Log:					
- Correct instrument listed?					
- Samples within 12 hour clock?	(\vec{Y})	N			
- Bottle position verfied?	Gr	20			

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Quantify Sample Summary Report

MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

U:\VG12.PRO\Results\200311R3\200311R3-7.qld

Last Altered:

Thursday, March 12, 2020 07:34:54 Pacific Daylight Time

Printed:

Thursday, March 12, 2020 07:35:58 Pacific Daylight Time

GRB 03/12/2020

Method: Untitled 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_7, Date: 11-Mar-2020, Time: 18:44:28, ID: ST200311R3_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

PCIA	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	2.06e5	0.74	NO	0.821	1.000	16.53	9.8162	98.2	0.107
2	2 13C-2,3,7,8-TCDF	2.56e6	0.77	NO	1.10	1.000	16.51	100.90	101	0.403
3	3 13C-1,2,3,4-TCDF	2.31e6	0.78	NO	1.00	1.000	14.41	100.00	100	0.443
4	4 13C-1,2,3,4-TCDD	1.84e6	0.78	NO	12000	1.000	15.04	153.62	154	0.228

Page 740 of 1184 Work Order 1903654

Dataset:

Untitled

Last Altered: Printed:

Thursday, March 12, 2020 07:36:34 Pacific Daylight Time Thursday, March 12, 2020 07:37:40 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30 Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

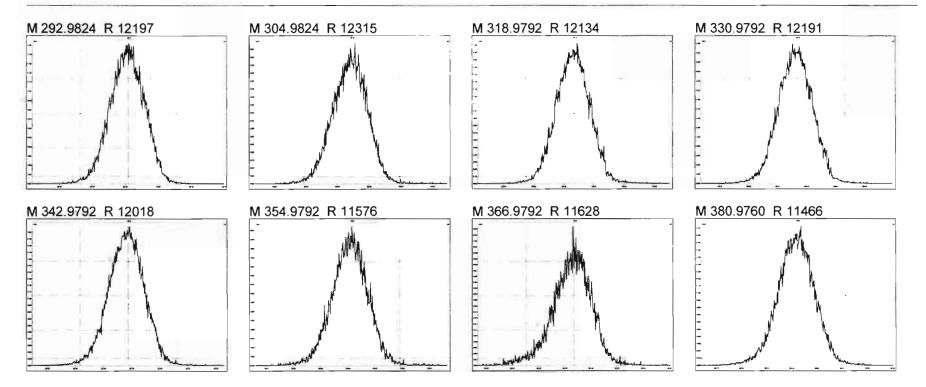
Compound name: 2,3,7,8-TCDF

	Name	ID	Acq.Date	Acq.Time
1	200311R3_4	SOLVENT BLANK	11-Mar-20	17:13:26
2	200311R3_5	SOLVENT BLANK	11-Mar-20	17:43:38
3	200311R3_6	CP200311R3_1 225 CPSM	11-Mar-20	18:14:01
4	200311R3_7	ST200311R3_1 1613 CS3 19L2305	11-Mar-20	18:44:28
5	200311R3_8	SOLVENT BLANK	11-Mar-20	19:14:55
6	200311R3_9	1903826-01RE2 PDI-034SC-B-00-02-191022	11-Mar-20	19:45:21
7	200311R3_10	1903826-05RE1 PDI-083SC-B-00-02-191022	11-Mar-20	20:15:49
8	200311R3_11	1903826-06RE1 PDI-083SC-B-02-04-191022	11-Mar-20	20:46:13
9	200311R3_12	1903826-07RE1 PDI-083SC-B-04-06-191022	11-Mar-20	21:16:40
10	200311R3_13	1903826-08RE1 PDI-083SC-B-06-08-191022	11-Mar-20	21:47:04
11	200311R3_14	1903826-09RE1 PDI-099SC-B-00-02-191022	11-Mar-20	22:17:32
12	200311R3_15	1903826-10RE1 PDI-099SC-B-02-04-191022	11-Mar-20	22:48:00
13	200311R3_16	1903826-11RE1 PDI-099SC-B-04-06-191022	11-Mar-20	23:18:24
14	200311R3_17	1903826-12RE1 PDI-099SC-B-06-08-191022	11-Mar-20	23:48:51
15	200311R3_18	1903654-01RE1 PDI-073SC-B-00-02-191013	12-Mar-20	00:19:18
16	200311R3_19	1903654-02RE1 PDI-073SC-B-02-04-191013	12-Mar-20	00:49:46
17	200311R3_20	1903654-04RE1 PDI-073SC-B-06-08-191013	12-Mar-20	01:20:15
18	200311R3_21	1903654-06RE1 PDI-075SC-B-02-04-191013	12-Mar-20	01:50:43
19	200311R3_22	B0A0056-DUP1 Duplicate 16.6	12-Mar-20	02:21:10
20	200311R3_23	1903654-07RE1 PDI-075SC-B-04-06-191013	12-Mar-20	02:51:37
21	200311R3_24	1903654-09RE1 PDI-076SC-B-00-02-191013	12-Mar-20	03:22:06
22	200311R3_25	1903654-10RE1 PDI-076SC-B-02-05-191013	12-Mar-20	03:52:34
23	200311R3_26	1903827-01RE1 PDI-057SC-B-00-02-191023	12-Mar-20	04:22:57
24	200311R3_27	1903827-02RE1 PDI-057SC-B-02-04-191023	12-Mar-20	04:53:25
25	200311R3_28	1903827-03RE1 PDI-057SC-B-04-06-191023	12-Mar-20	05:23:51
26	200311R3 29	1903736-10RE3 PDI-079SC-B-02-04-191014	12-Mar-20	05:54:20

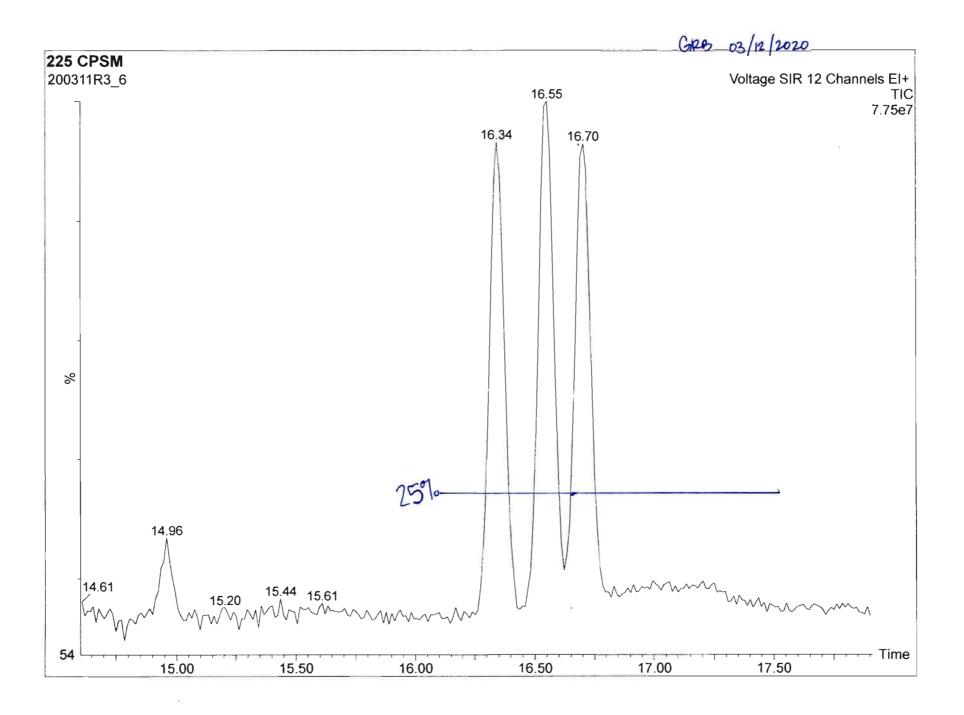
Experiment: tcdf_db225.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Wednesday, March 11, 2020 16:47:45 Pacific Daylight Time



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Work Order 1903654 Page 743 of 1184

Vista Analytical Laboratory VG-11

Dataset:

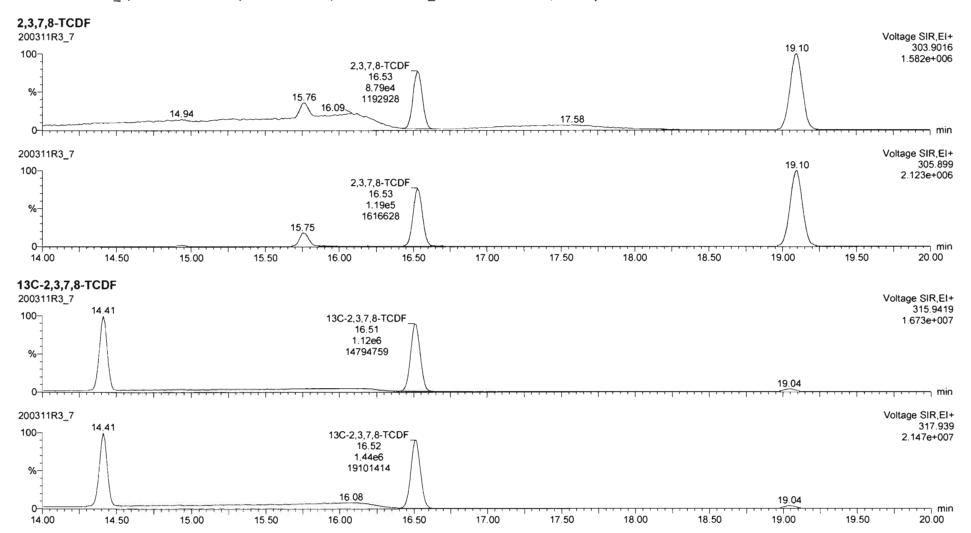
Untitled

Last Altered: Printed: Thursday, March 12, 2020 07:34:54 Pacific Daylight Time Thursday, March 12, 2020 07:35:08 Pacific Daylight Time

Method: Untitled 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R3_7, Date: 11-Mar-2020, Time: 18:44:28, ID: ST200311R3_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Quantify Sample Report MassLynx 4.1 SCN815

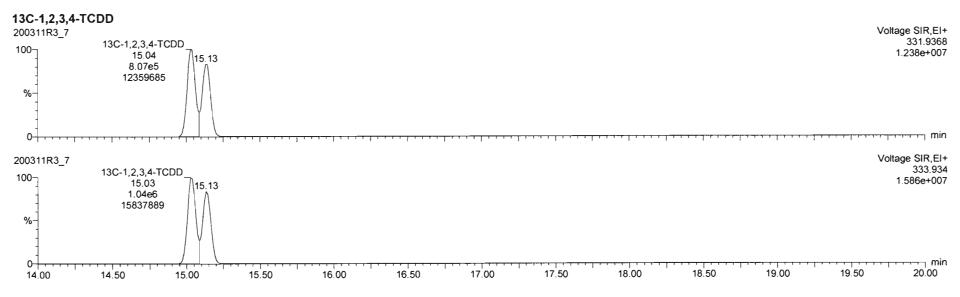
Vista Analytical Laboratory VG-11

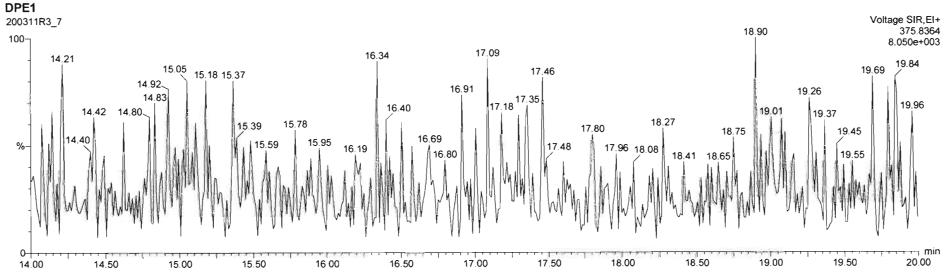
Dataset:

Untitled

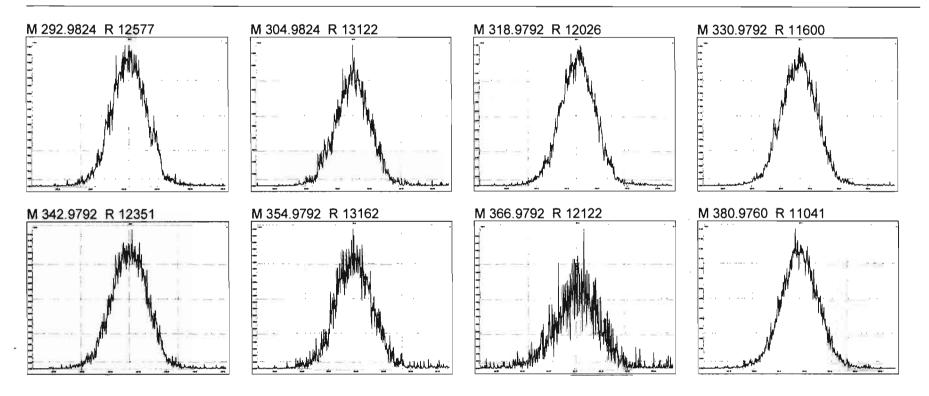
Last Altered: Printed: Thursday, March 12, 2020 07:34:54 Pacific Daylight Time Thursday, March 12, 2020 07:35:08 Pacific Daylight Time

Name: 200311R3_7, Date: 11-Mar-2020, Time: 18:44:28, ID: ST200311R3_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305





Thursday, March 12, 2020 06:26:41 Pacific Daylight Time



HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID:	ST200318RI-1		!	Reviewed By: <u>(17 /3//202)</u>		
	-			Initials & Date		
End Calibration ID:	NA	— Pos	End		Beg.	End
		Beg.	End		<u>Beg.</u>	
Ion abundance within G	QC limits?	\checkmark	<u>ap</u>	Mass resolution ≥		
Concentrations within	criteria?		ф	□ 5k □ 6-8K □ 8K 対10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25	5%		Ф	Intergrated peaks display correctly?		μA
First and last eluters p	resent?			GC Break <20%		
Retention Times within	ı criteria?			8280 CS1 End Standard:		
Verification Std. named	d correctly?		Ф	- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		NA
(ST-Year-Month-Day	y-VG ID)					
Forms signed and date	d?		Ф	Comments:		
Correct ICAL reference	ed?	GPB				
Run Log:						
- Correct instrument	listed?	/				
- Samples within 12 h	our clock?	(Y)	N			
- Bottle position verfi	ied?		28			

ID: LR - HCSRC

DIVERSION.

Rev. No.: 0 Rev. Date: 06/06/2017

Page: 1 of 1

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200318R1\200318R1-1.qld

Last Altered:

Wednesday, March 18, 2020 16:19:33 Pacific Daylight Time

Printed:

Wednesday, March 18, 2020 16:20:45 Pacific Daylight Time

GRB 03/18/2020 C7 03/19/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R1_1, Date: 18-Mar-2020, Time: 15:30:33, ID: ST200318R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

E PER	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	8.74e4	9.60e5	0.80	NO	0.983	25.81	25.80	NO	1.001	1.001	9.2633	92.6	NO
2	2 1,2,3,7,8-PeCDD	3.36e5	7.67e5	0.61	NO	0.921	31.09	31.08	NO	1.001	1.000	47.554	95.1	NO
3	3 1,2,3,4,7,8-HxCDD	3.10e5	5.50e5	1.24	NO	1.13	34.48	34.48	NO	1.000	1.000	49.674	99.3	NO
4	4 1,2,3,6,7,8-HxCDD	3.20e5	6.97e5	1.25	NO	0.984	34.57	34.58	NO	1.000	1.000	46.621	93.2	NO
5	5 1,2,3,7,8,9-HxCDD	2.94e5	6.32e5	1.26	NO	0.967	34.84	34.84	NO	1.000	1.000	48.071	96.1	NO
6	6 1,2,3,4,6,7,8-HpCDD	2.46e5	5.06e5	1.04	NO	1.01	38.26	38.27	NO	1.000	1.001	48.409	96.8	NO
7	7 OCDD	4.75e5	9.90e5	0.92	NO	1.05	41.31	41.32	NO	1.000	1.000	91.204	91.2	NO
8	8 2,3,7,8-TCDF	1.13e5	1.32e6	0.75	NO	0.915	24.80	24.81	NO	1.001	1.001	9.3635	93.6	NO
9	9 1,2,3,7,8-PeCDF	5.09e5	1.08e6	1.56	NO	0.959	29.74	29.74	NO	1.001	1.001	49.091	98.2	NO
10	10 2,3,4,7,8-PeCDF	5.29e5	1.09e6	1.58	NO	1.00	30.77	30.76	NO	1.001	1.000	48.359	96.7	NO
11	11 1,2,3,4,7,8-HxCDF	4.10e5	8.09e5	1.22	NO	1.04	33.61	33.63	NO	1.000	1.001	48.818	97.6	NO
12	12 1,2,3,6,7,8-HxCDF	4.45e5	9.03e5	1.25	NO	1.01	33.75	33.75	NO	1.000	1.000	48.708	97.4	NO
13	13 2,3,4,6,7,8-HxCDF	4.34e5	8.22e5	1.21	NO	1.09	34.33	34.32	NO	1.001	1.001	48.367	96.7	NO
14	14 1,2,3,7,8,9-HxCDF	3.35e5	6.75e5	1.23	NO	1.03	35.17	35.18	NO	1,000	1.000	48.298	96.6	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.34e5	6.61e5	1.00	NO	1.05	36.90	36.88	NO	1.001	1,000	48.218	96.4	NO
16	16 1,2,3,4,7,8,9-HpCDF	2.60e5	4.43e5	1.02	NO	1.21	38.90	38.92	NO	1.000	1.001	48.571	97.1	NO
17	17 OCDF	5.49e5	1.19e6	0.88	NO	0.947	41.49	41.50	NO	1.000	1.000	97.240	97.2	NO
18	18 13C-2,3,7,8-TCDD	9.60e5	8.34e5	0.78	NO	1.18	25.77	25.78	NO	1.029	1.029	97.175	97.2	NO
19	19 13C-1,2,3,7,8-PeCDD	7.67e5	8.34e5	0.63	NO	0.864	30.96	31.06	NO	1.236	1.240	106.45	106	NO
20	20 13C-1,2,3,4,7,8-HxCDD	5.50e5	8.17e5	1.28	NO	0.754	34.47	34.47	NO	1.014	1.014	89.378	89.4	NO
21	21 13C-1,2,3,6,7,8-HxCDD	6.97e5	8.17e5	1.25	NO	0.925	34.58	34.57	NO	1.017	1.017	92.178	92.2	NO
22	22 13C-1,2,3,7,8,9-HxCDD	6.32e5	8.17e5	1.28	NO	0.829	34.84	34.83	NO	1.025	1.024	93.304	93.3	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.06e5	8.17e5	1.07	NO	0.598	38.31	38.25	NO	1.127	1.125	103.56	104	NO
24	24 13C-OCDD	9.90e5	8.17e5	0.89	NO	0.571	41.46	41.31	NO	1.219	1.215	212.25	106	NO
25	25 13C-2,3,7,8-TCDF	1.32e6	1.26e6	0.78	NO	1.09	24.79	24.78	NO	0.990	0.989	96.184	96.2	NO
26	26 13C-1,2,3,7,8-PeCDF	1.08e6	1,26e6	1.58	NO	0.876	29.63	29.72	NO	1.183	1.187	98.261	98.3	NO
27	27 13C-2,3,4,7,8-PeCDF	1.09e6	1.26e6	1.58	NO	0.844	30.64	30.74	NO	1.223	1.227	102.96	103	NO
28	28 13C-1,2,3,4,7,8-HxCDF	8.09e5	8.17e5	0.52	NO	1.00	33.62	33.61	NO	0.989	0.988	99.108	99.1	NO
29	29 13C-1,2,3,6,7,8-HxCDF	9.03e5	8.17e5	0.51	NO	1.12	33.73	33.74	NO	0.992	0.992	98.934	98.9	NO
30	30 13C-2,3,4,6,7,8-HxCDF	8.2 2 e5	8.17e5	0.52	NO	1.04	34.31	34.30	NO	1.009	1.009	97.184	97.2	NO
31	31 13C-1,2,3,7,8,9-HxCDF	6.75e5	8.17e5	0.52	NO	0.873	35.18	35.17	NO	1.035	1.034	94.621	94.6	NO

Dataset:

U:\VG12.PRO\Results\200318R1\200318R1-1.qld

Last Altered:

Wednesday, March 18, 2020 16:19:33 Pacific Daylight Time

Printed: Wednesday, March 18, 2020 16:20:45 Pacific Daylight Time

Name: 200318R1_1, Date: 18-Mar-2020, Time: 15:30:33, ID: ST200318R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

30 10	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	32 13C-1,2,3,4,6,7,8-HpCDF	6.61e5	8.17e5	0.45	NO	0.771	36.90	36.87	NO	1.085	1.084	105.06	105	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.43e5	8.17e5	0.44	NO	0.519	38.99	38.90	NO	1,147	1.144	104.46	104	NO
34	34 13C-OCDF	1.19e6	8.17e5	0.88	NO	0.696	41.64	41.49	NO	1.225	1.220	209.61	105	NO
35	35 37Cl-2,3,7,8-TCDD	8.89e4	8.34e5			1.17	25.78	25.80	NO	1.029	1.030	9.0716	90.7	NO
36	36 13C-1,2,3,4-TCDD	8.34e5	8.34e5	0.79	NO	1.00	25.05	25.05	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.26e6	1.26e6	0.78	NO	1.00	23.19	23.12	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	8.17e5	8.17e5	0.51	NO	1.00	33.88	34.00	NO	1.000	1.000	100.00	100	YESOF
39	39 Total Tetra-Dioxins		9.60e5			0.983	24.62		NO	0.000		81.434		NO
40	40 Total Penta-Dioxins		7.67e5			0.921	29.96		NO	0.000		206.09		NO
41	41 Total Hexa-Dioxins		0.00e0			0.984	33.63		NO	0.000		240.16		NO
42	42 Total Hepta-Dioxins		5.06e5			1.01	37.64		NO	0.000		131.92		NO
43	43 Total Tetra-Furans		1.32e6			0.915	23.61		NO	0.000		46.262		NO
44	44 1st Func. Penta-Furans		0.00e0			0.959	27.09		NO	0.000		85.994		NO
45	45 Total Penta-Furans		0.00e0			0.959	29.27		NO	0.000		166.94		NO
46	46 Total Hexa-Furans		0.00e0			1.09	33.56		NO	0.000		2 74.02		NO
47	47 Total Hepta-Furans		0.00e0			1.05	37.83		NO	0.000		96.789		NO

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Page 1 of 1

Dataset: U:\VG12.PRO\Results\200318R1\200318R1-CPSM.qld

Last Altered: Wednesday, March 18, 2020 16:21:07 Pacific Daylight Time Wednesday, March 18, 2020 16:21:39 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 15 Mar 2020 13:05:01

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R1_1, Date: 18-Mar-2020, Time: 15:30:33, ID: ST200318R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1	# Name	RT
1	1 1,3,6,8-TCDD (First)	21.42
2	2 1,2,8,9-TCDD (Last)	26.84
3	3 1,2,4,7,9-PeCDD (First)	28.76
4	4 1,2,3,8,9-PeCDD (Last)	31.48
5	5 1,2,4,6,7,9-HxCDD (First)	33.01
6	6 1,2,3,7,8,9-HxCDD (Last)	34.84
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.25
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.27
9	9 1,3,6,8-TCDF (First)	19.42
10	10 1,2,8,9-TCDF (Last)	27.01
11	11 1,3,4,6,8-PeCDF (First)	26.96
12	12 1,2,3,8,9-PeCDF (Last)	31.72
13	13 1,2,3,4,6,8-HxCDF (First)	32.44
14	14 1,2,3,7,8,9-HxCDF (Last)	35.18
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.88
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.92

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Page 1 of 1

Dataset:

Untitled

Last Altered: Printed: Thursday, March 19, 2020 07:33:25 Pacific Daylight Time Thursday, March 19, 2020 07:33:49 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Compound name: 2,3,7,8-TCDD

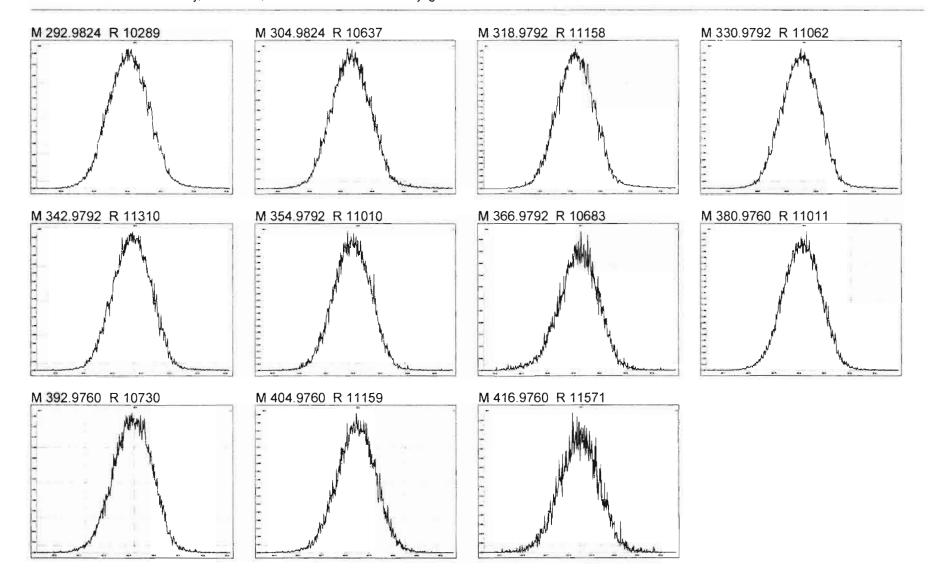
	Name	ID	Acq.Date	Acq.Time
1	200318R1_1	ST200318R1_1 1613 CS3 19L2305	18-Mar-20	15:30:33
2	200318R1_2	B0B0187-BS1 OPR 10	18-Mar-20	16:17:45
3	200318R1_3	B0C0038-BS1 OPR 10	18-Mar-20	17:04:28
4	200318R1_4	B0C0209-BS1 OPR 10	18-Mar-20	17:52:09
5	200318R1_5	SOLVENT BLANK	18-Mar-20	18:39:49
6	200318R1_6	B0B0187-BLK1 Method Blank 10	18-Mar-20	19:27:30
7	200318R1_7	B0C0038-BLK1 Method Blank 10	18-Mar-20	20:15:08
8	200318R1_8	B0C0209-BLK1 Method Blank 10	18-Mar-20	21:02:47
9	200318R1_9	2000194-12 PDI-057SC-A-07-08-191023 16.62	18-Mar-20	21:50:26
10	200318R1_10	2000194-13 PDI-057SC-A-08-09-191023 15.92	18-Mar-20	22:38:04
11	200318R1_11	2000194-14 PDI-062SC-A-08-09-191023 15.59	18-Mar-20	23:25:43
12	200318R1_12	2000194-15 PDI-062SC-A-09-10-191023 12.41	19-Mar-20	00:13:28
13	200318R1_13	2000142-16RE1 PDI-023SC-A-07-08-191009	19-Mar-20	01:01:06
14	200318R1_14	2000143-19@2X PDI-049SC-A-02-03-191015	. 19-Mar-20	01:48:46
15	200318R1_15	2000194-03@10X PDI-035SC-A-01-02-19101	19-Mar-20	02:36:32

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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Wednesday, March 18, 2020 15:26:14 Pacific Daylight Time

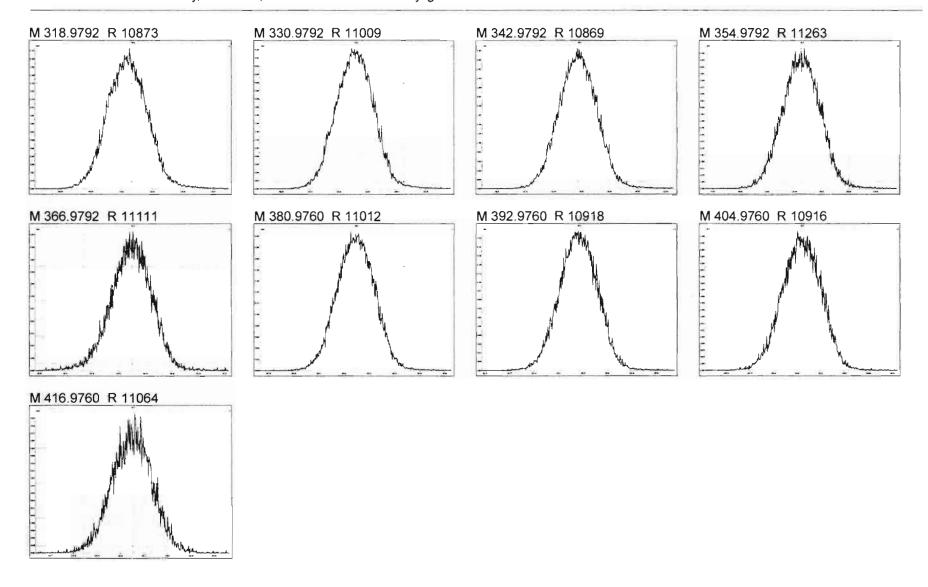


Work Order 1903654 Page 752 of 1184

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed:

Wednesday, March 18, 2020 15:26:48 Pacific Daylight Time

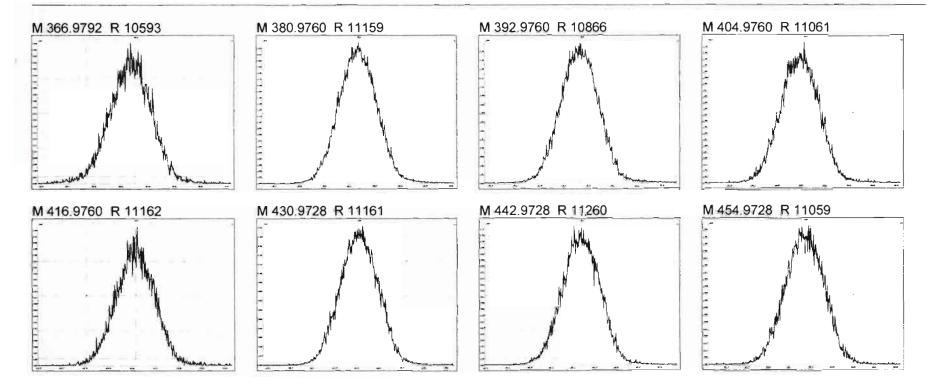


Work Order 1903654 Page 753 of 1184

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed:

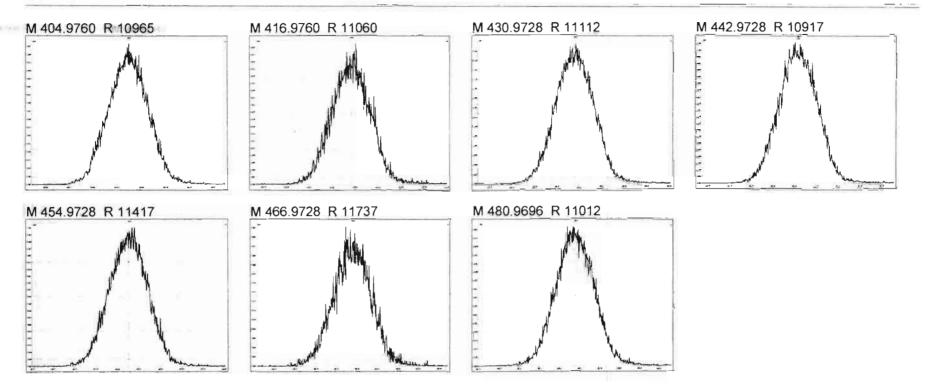
Wednesday, March 18, 2020 15:27:18 Pacific Daylight Time



Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed:

Wednesday, March 18, 2020 15:27:55 Pacific Daylight Time

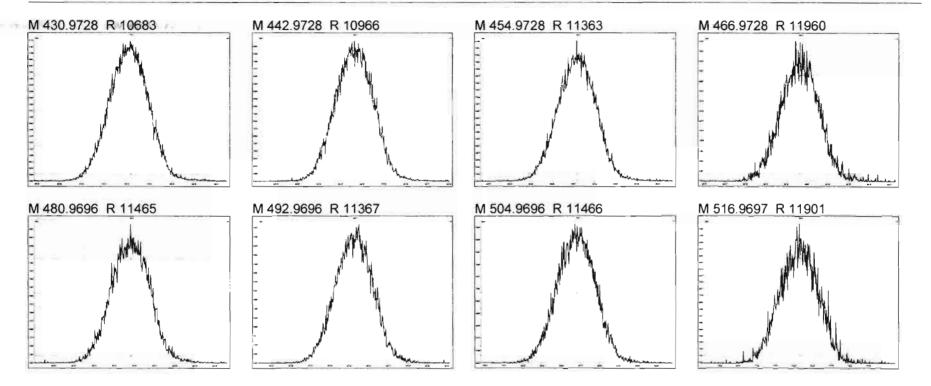


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Wednesday, March 18, 2020 15:28:37 Pacific Daylight Time



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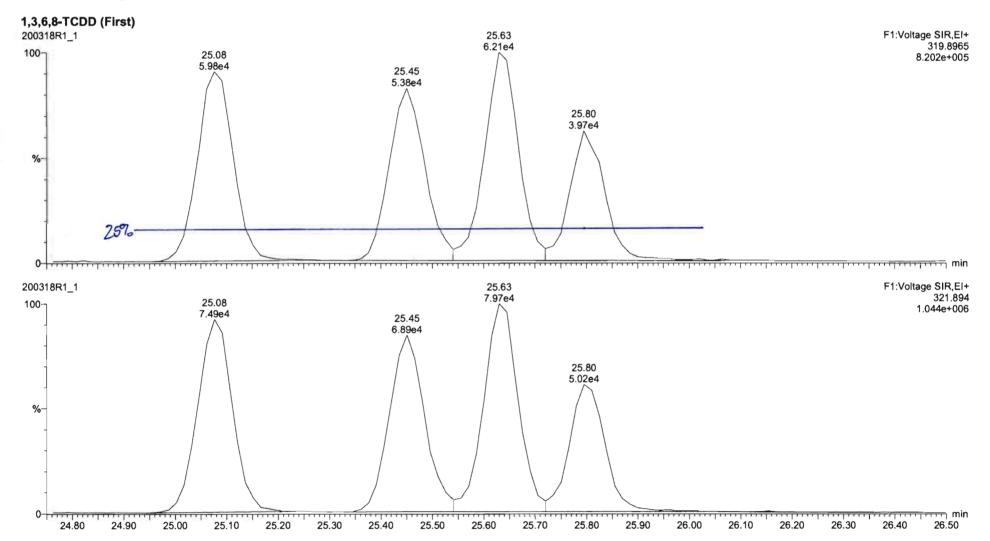
Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\200318R1\200318R1-CPSM.qld

Last Altered: Wednesday, March 18, 2020 16:21:07 Pacific Daylight Time Printed: Wednesday, March 18, 2020 16:21:39 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 15 Mar 2020 13:05:01

Calibration: U:\VG12.PRO\CurveDB\db5 1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02



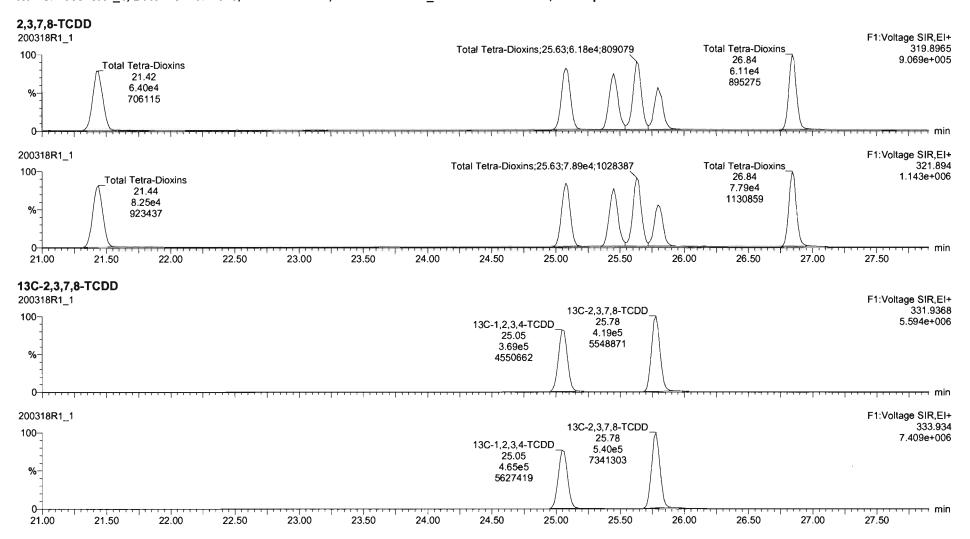
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Last Altered: Printed:

Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02



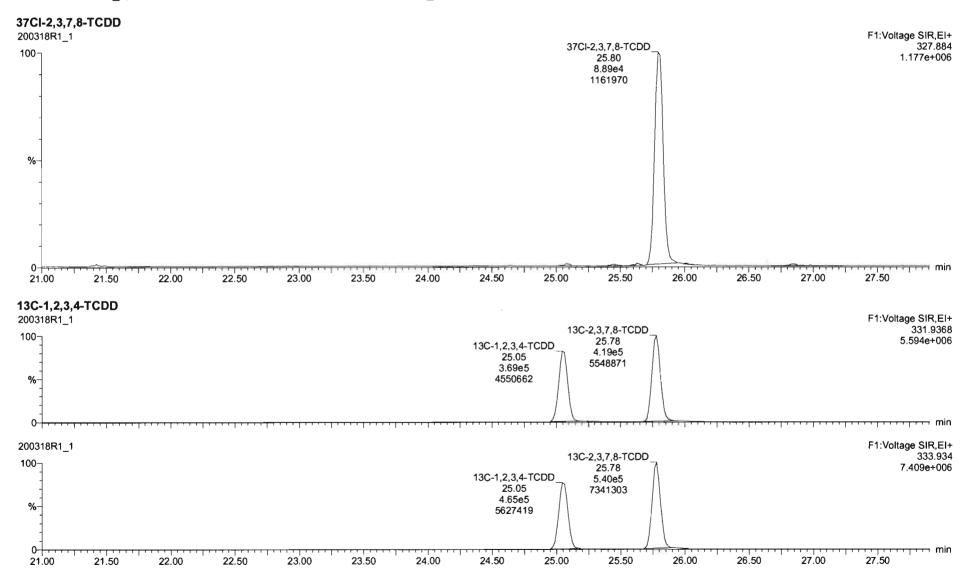
Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

Dataset:

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Last Altered: Printed:

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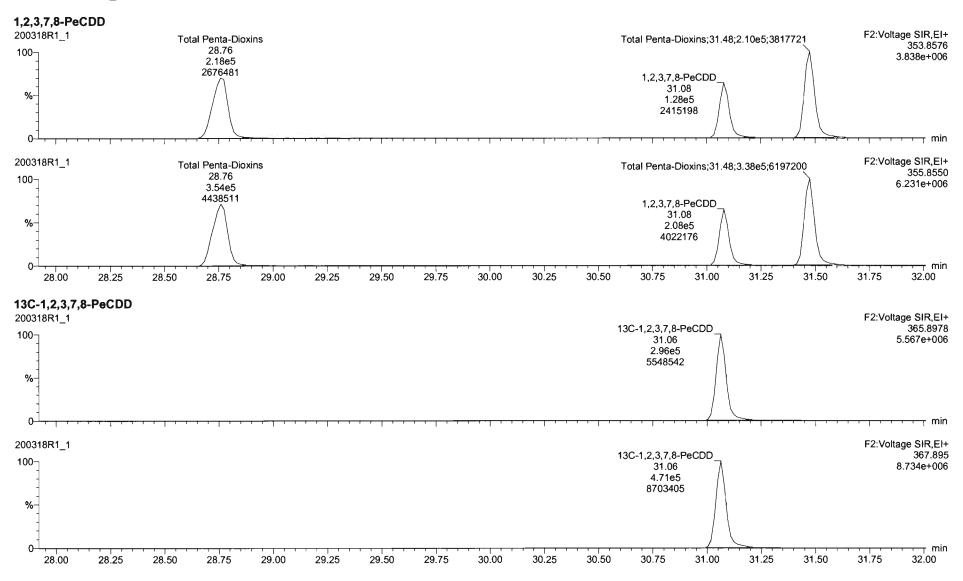


Quantify Sample Report Vista Analytical Laboratory

Dataset:

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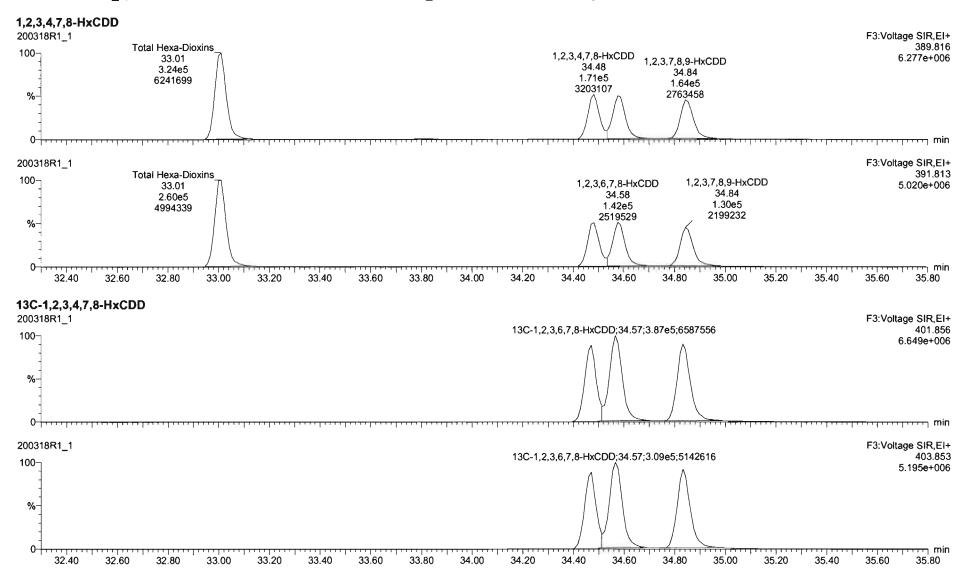
Last Altered: Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time



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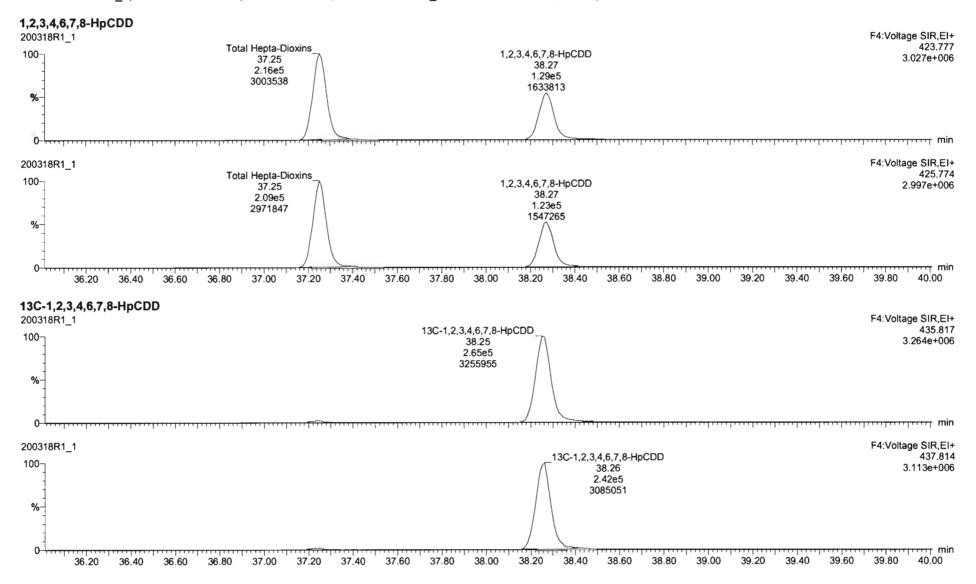
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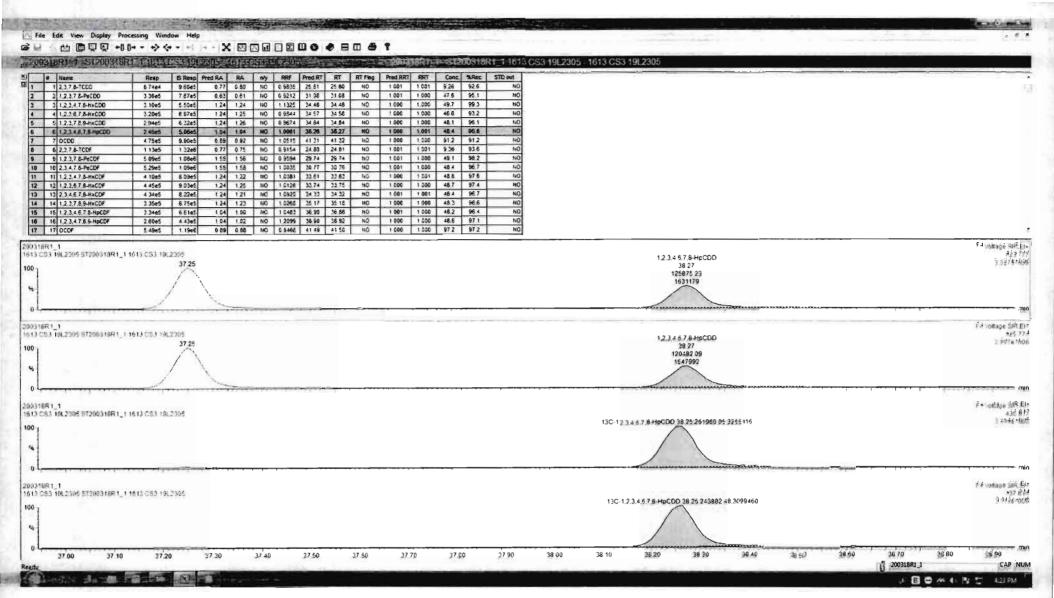
Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time



Untitled

Last Altered: Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time





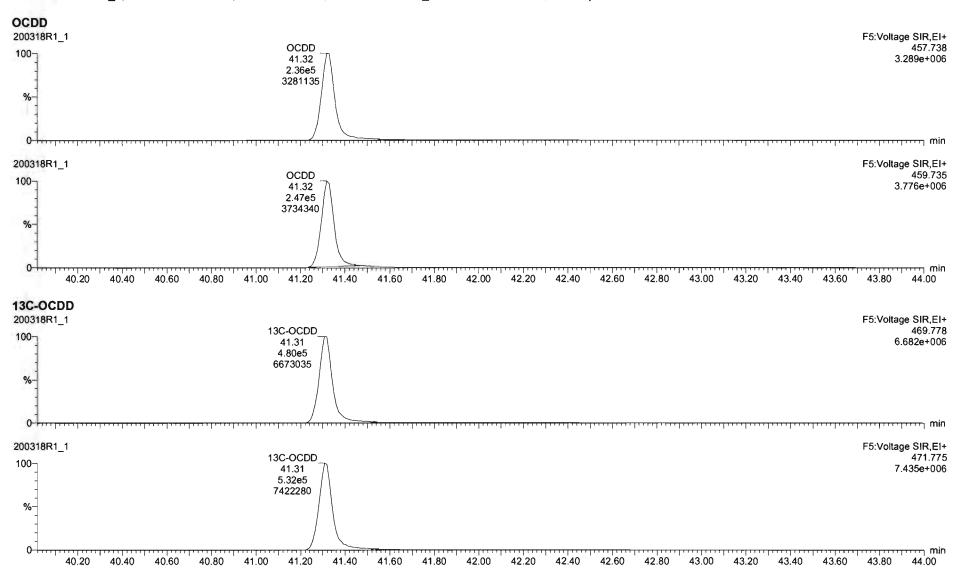
Work Order 1903654 Page 763 of 1184

Untitled

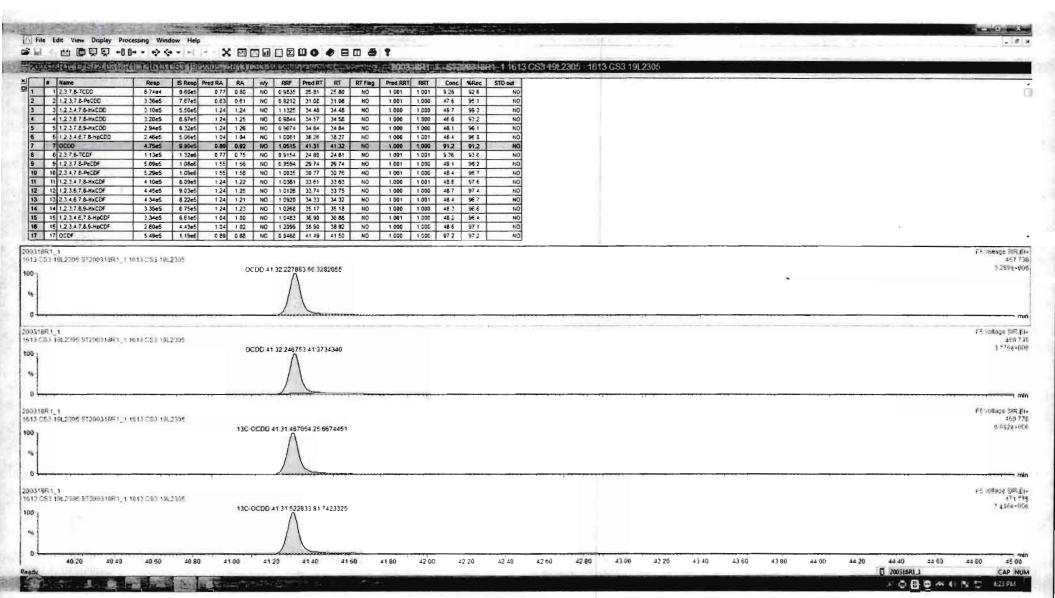
Last Altered: Printed:

Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time

Name: 200318R1_1, Date: 18-Mar-2020, Time: 15:30:33, ID: ST200318R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305



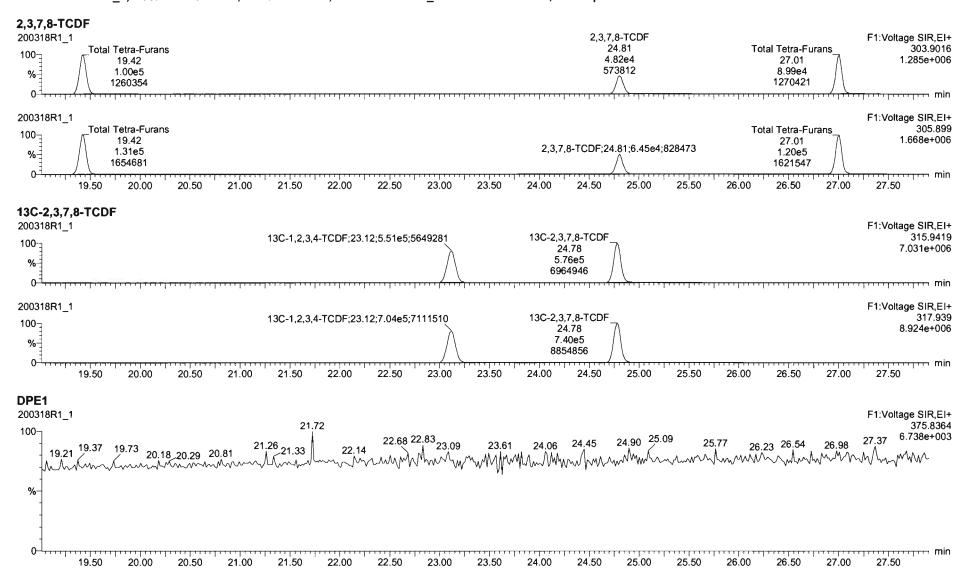
Work Order 1903654



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Last Altered: Printed:

Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time



Quantify Sample Report Vista Analytical Laboratory

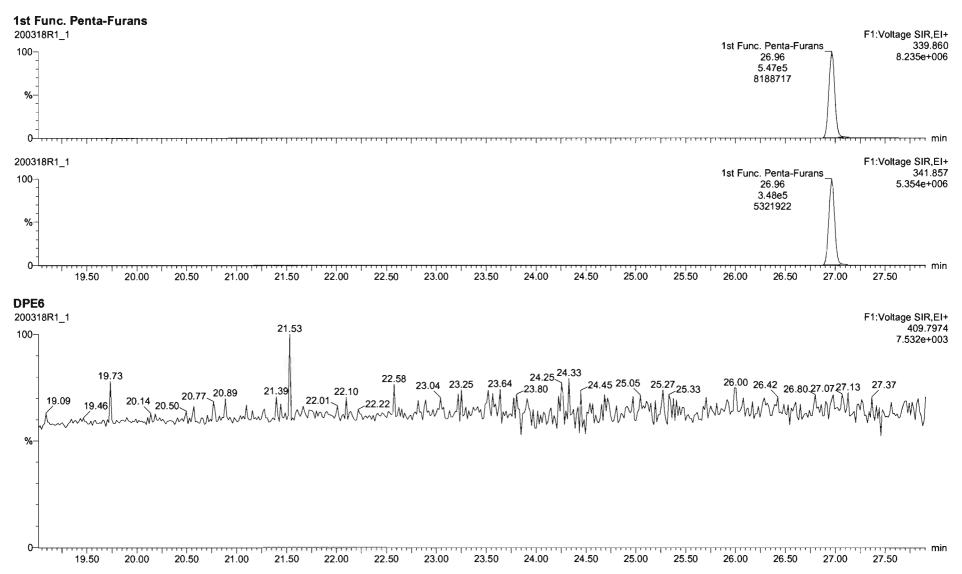
Dataset:

Untitled

Last Altered: Printed:

Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time

Name: 200318R1_1, Date: 18-Mar-2020, Time: 15:30:33, ID: ST200318R1_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

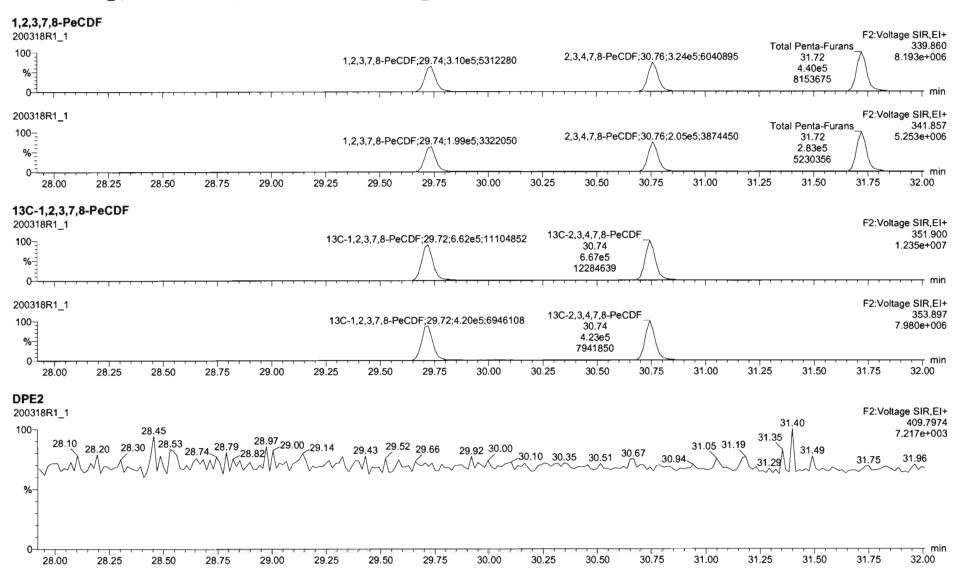


Work Order 1903654

Untitled

Last Altered: Printed:

Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time

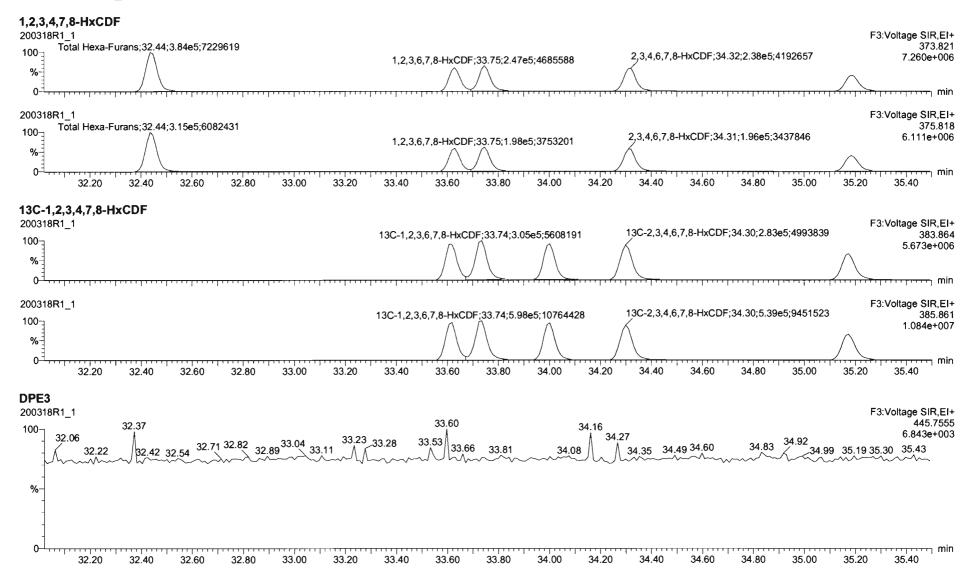


Quantify Sample Report Vista Analytical Laboratory

Dataset:

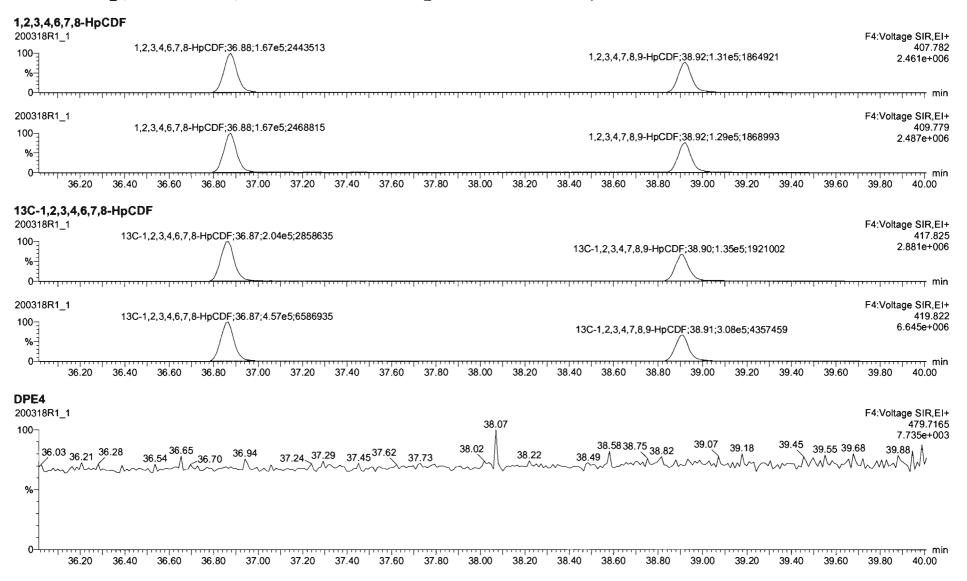
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Last Altered: Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Printed: Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time



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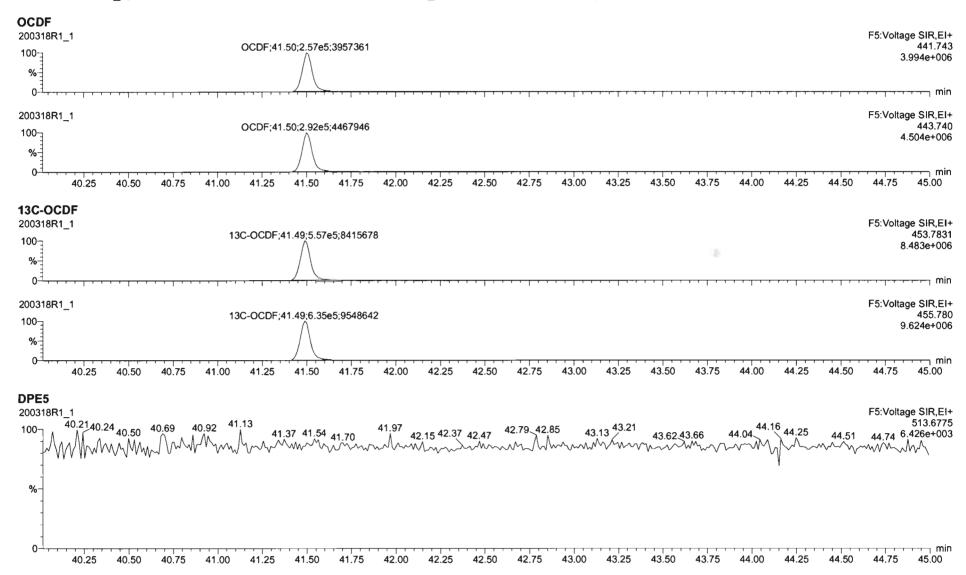
Last Altered: Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time



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Last Altered: Printed:

Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time

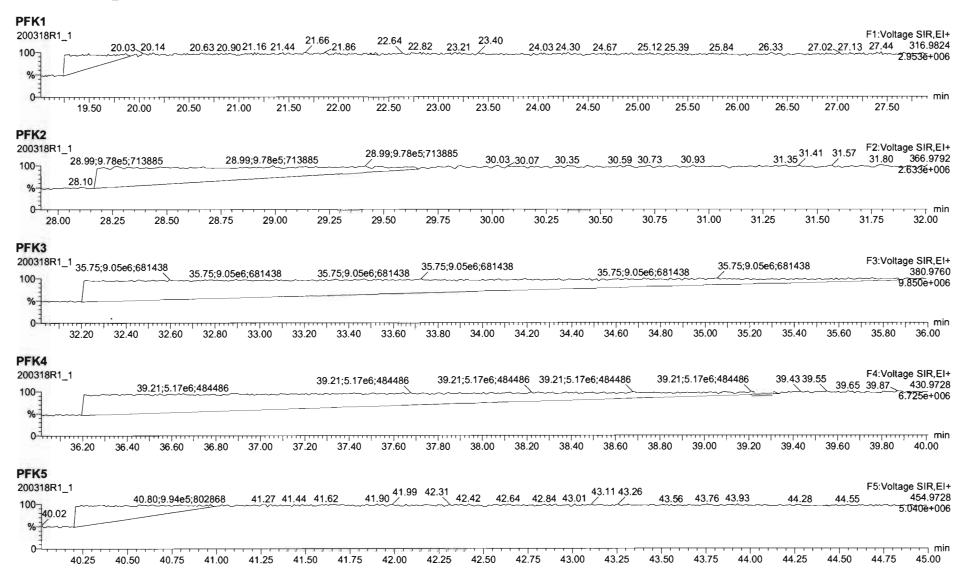


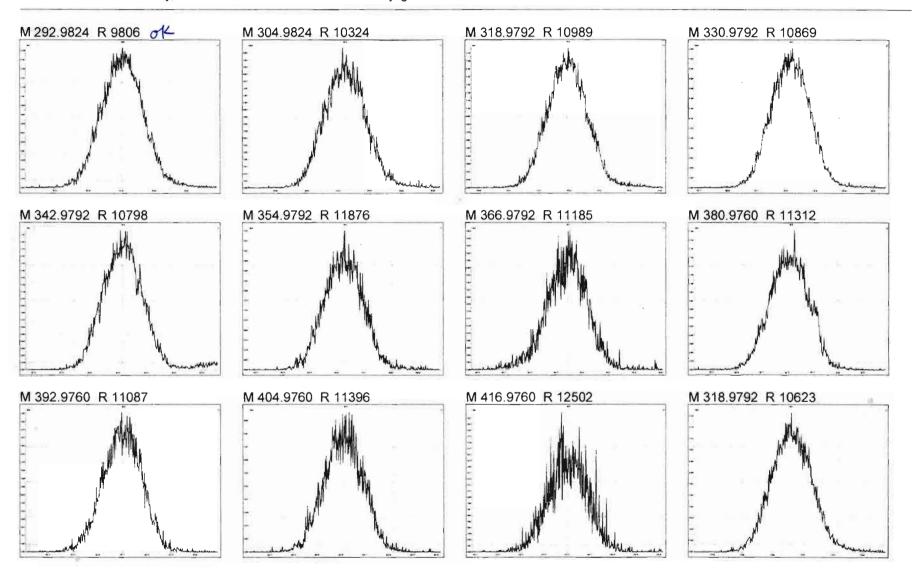
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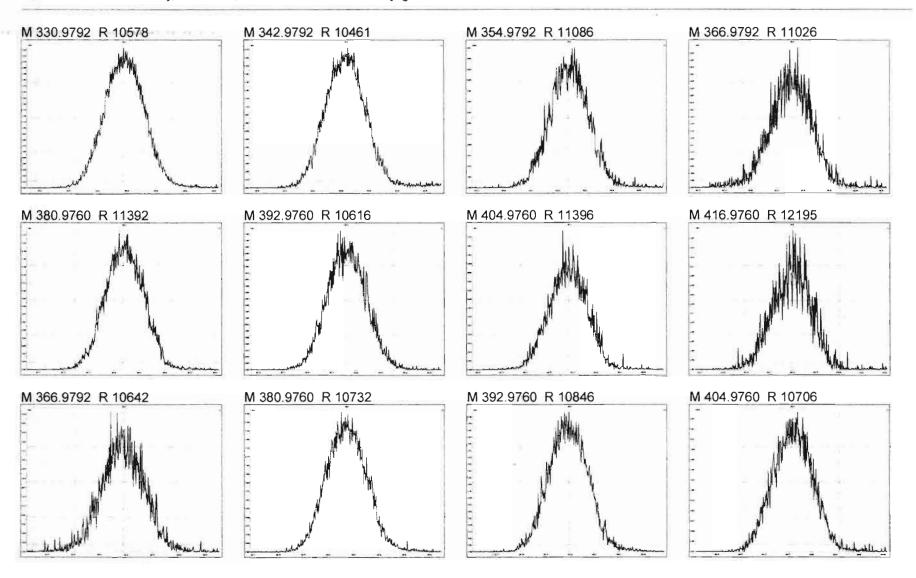
Quantify Sample Report

Vista Analytical Laboratory

Last Altered: Wednesday, March 18, 2020 16:20:50 Pacific Daylight Time Printed: Wednesday, March 18, 2020 16:21:00 Pacific Daylight Time

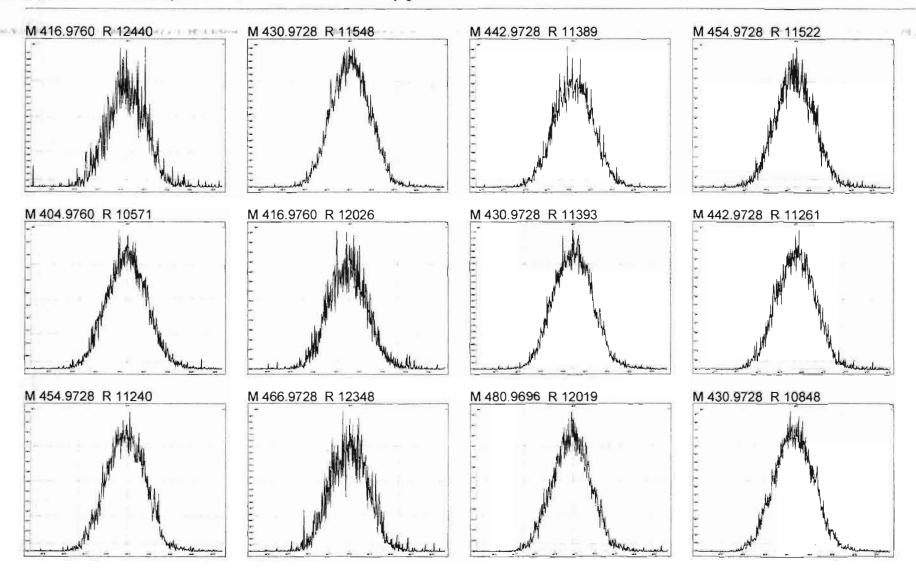




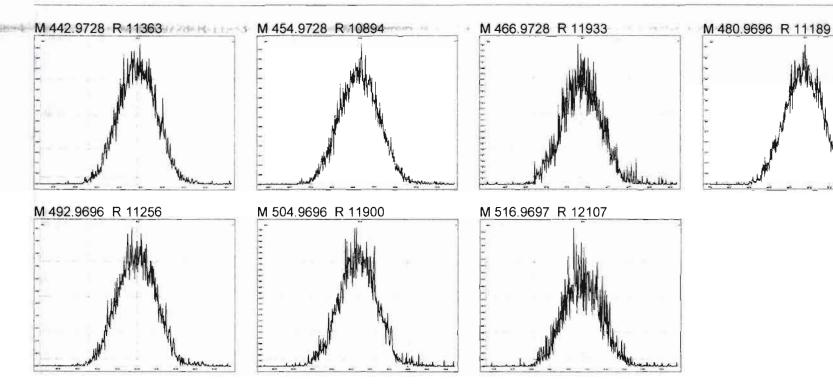


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Printed:



Thursday, March 19, 2020 03:33:04 Pacific Daylight Time



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HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST20031812-	_	R	Reviewed By: C7 03/20/2020	_	
End Calibration ID: NA	_		Initials' & Date		
ion abundance within QC limits?	Beg.	End	Mass resolution ≥	Beg.	End
Concentrations within criteria?		ф	□ 5k □ 6-8K □ 8K \$\div 10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25%			Intergrated peaks display correctly?	V	NA
First and last eluters present?		ф	GC Break <20%		
Retention Times within criteria?	1	Ф	8280 CS1 End Standard:		
Verification Std. named correctly?	>		- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		NA
(ST-Year-Month-Day-VG ID)					
Forms signed and dated?	1		Comments:		
Correct ICAL referenced?	GRB				
Run Log:					
- Correct instrument listed?		\downarrow			
- Samples within 12 hour clock?	(Y)	N			
- Bottle position verfied?		PB			

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200318R2\200318R2-2.qld

Last Altered: Printed:

Thursday, March 19, 2020 07:42:20 Pacific Daylight Time Thursday, March 19, 2020 07:42:37 Pacific Daylight Time

GRB 03/19/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R2_2, Date: 19-Mar-2020, Time: 04:19:20, ID: ST200318R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

31	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	8.95e4	9.81e5	0.80	NO	0.983	25.80	25.80	NO	1.001	1.001	9.2801	92.8	NO
2	2 1,2,3,7,8-PeCDD	3.18e5	7.29e5	0.62	NO	0.921	31.07	31.08	NO	1.001	1.001	47.332	94.7	NO
3	3 1,2,3,4,7,8-HxCDD	2.83e5	5.17e5	1.24	NO	1.13	34.47	34.47	NO	1.000	1.000	48.307	96.6	NO
4	4 1,2,3,6,7,8-HxCDD	2.94e5	6.35e5	1.25	NO	0.984	34.56	34.58	NO	1.000	1.001	47.050	94.1	NO
5	5 1,2.3,7.8,9-HxCDD	2.71e5	5.80e5	1.27	NO	0.967	34.83	34.84	NO	1.000	1.001	48.303	96.6	NO
6	6 1,2,3,4,6,7,8-HpCDD	2.07e5	4.36e5	1.02	NO	1.01	38.26	38.26	NO	1.000	1.000	47.172	94.3	NO
7	7 OCDD	3.92e5	8.05e5	0.89	NO	1.05	41.32	41.33	NO	1.000	1.000	92.610	92.6	NO
8	8 2,3,7,8-TCDF	1.08e5	1.32e6	0.76	NO	0.915	24.79	24.79	NO	1.001	1.001	8.9625	89.6	NO
9	9 1,2,3,7,8-PeCDF	4.89e5	1.04e6	1.59	NO	0.959	29.73	29.72	NO	1.001	1.001	48.766	97.5	NO
10	10 2,3,4,7,8-PeCDF	4.92e5	1.03e6	1.59	NO	1.00	30.77	30.76	NO	1.001	1.000	47.838	95.7	NO
11	11 1,2,3,4,7,8-HxCDF	3.57e5	7.36e5	1.22	NO	1.04	33.61	33.62	NO	1.000	1.000	46.757	93.5	NO
12	12 1,2,3,6,7,8-HxCDF	3.95e5	8.07e5	1.23	NO	1.01	33.73	33.74	NO	1.000	1.000	48.330	96.7	NO
13	13 2,3,4,6,7,8-HxCDF	3.79e5	7.35e5	1.21	NO	1.09	34.32	34.31	NO	1.001	1.001	47.252	94.5	NO
14	14 1,2,3,7,8,9-HxCDF	2.98e5	6.08e5	1.22	NO	1.03	35.16	35.17	NO	1.000	1.000	47.670	95.3	NO
15	15 1,2,3,4,6,7,8-HpCDF	2.77e5	5.62e5	1.01	NO	1.05	36.89	36.87	NO	1.001	1.000	47.040	94.1	NO
16	16 1,2,3,4,7,8,9-HpCDF	2.13e5	3.75e5	1.00	NO	1.21	38.90	38.91	NO	1.000	1.000	47.030	94.1	NO
17	17 OCDF	4.34e5	9.69e5	0.89	NO	0.947	41.50	41.51	NO	1.000	1.000	94.561	94.6	NO
18	18 13C-2,3,7,8-TCDD	9.81e5	8.38e5	0.77	NO	1.18	25.77	25.77	NO	1.029	1.029	98.835	98.8	NO
19	19 13C-1,2,3,7,8-PeCDD	7.29e5	8.38e5	0.63	NO	0.864	30.96	31.05	NO	1.236	1.240	100.63	101	NO
20	20 13C-1,2,3,4,7,8-HxCDD	5.17e5	7.33e5	1.33	NO	0.754	34.46	34.46	NO	1.014	1.014	93.436	93.4	NO
21	21 13C-1,2,3,6,7,8-HxCDD	6.35e5	7.33e5	1.21	NO	0.925	34.57	34.56	NO	1.017	1.017	93.578	93.6	NO
22	22 13C-1,2,3,7,8,9-HxCDD	5.80e5	7.33e5	1.25	NO	0.829	34.83	34.82	NO	1.025	1.024	95.339	95.3	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.36e5	7.33e5	1.03	NO	0.598	38.29	38.25	NO	1,127	1.125	99.323	99.3	NO
24	24 13C-OCDD	8.05e5	7.33e5	0.90	NO	0.571	41.44	41.32	NO	1.219	1.216	192.22	96.1	NO
25	25 13C-2,3,7,8-TCDF	1.32e6	1.25e6	0.78	NO	1.09	24.79	24.76	NO	0.990	0.989	97.395	97.4	NO
26	26 13C-1,2,3,7,8-PeCDF	1.04e6	1.25e6	1.60	NO	0.876	29.63	29.71	NO	1.183	1.186	95.769	95.8	NO
27	27 13C-2,3,4,7,8-PeCDF	1.03e6	1.25e6	1.55	NO	0.844	30.64	30.74	NO	1.223	1.227	97:644	97.6	NO
28	28 13C-1,2,3,4,7,8-HxCDF	7.36e5	7.33e5	0.50	NO	1.00	33.61	33.61	NO	0.989	0.989	100.37	100	NO
29	29 13C-1,2,3,6,7,8-HxCDF	8.07e5	7.33e5	0.51	NO	1.12	33.72	33.72	NO	0.992	0.992	98.413	98.4	NO
30	30 13C-2,3,4,6,7,8-HxCDF	7.35e5	7.33e5	0.52	NO	1.04	34.30	34.29	NO	1.009	1.009	96.869	96.9	NO
31	31 13C-1,2,3,7,8,9-HxCDF	6.08e5	7.33e5	0.51	NO	0.873	35.17	35.16	NO	1.035	1.034	94.956	95.0	NO

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U:\VG12.PRO\Results\200318R2\200318R2-2.qld

Last Altered: Printed:

Thursday, March 19, 2020 07:42:20 Pacific Daylight Time Thursday, March 19, 2020 07:42:37 Pacific Daylight Time

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	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out	1
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.62e5	7.33e5	0.44	NO	0.771	36.89	36.86	NO	1.085	1.084	99.435	99.4	NO	1
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.75e5	7.33e5	0.44	NO	0.519	38.98	38.90	NO	1.147	1.144	98.486	98.5	NO	to S Editable (See
34	34 13C-OCDF	9.69e5	7.33e5	88.0	NO	0.696	41.62	41.50	NO	1.225	1.221	189.77	94.9	NO	
35	35 37CI-2,3,7.8-TCDD	9.32e4	8.38e5			1.17	25.78	25.78	NO	1.029	1.029	9.4712	94.7	NO	
36	36 13C-1,2,3,4-TCDD	8.38e5	8.38e5	0.79	NO	1.00	25.05	25.05	NO	1.000	1.000	100.00	100	NO	
37	37 13C-1.2,3,4-TCDF	1.25e6	1.25e6	0.78	NO	1.00	23.19	23.10	NO	1.000	1.000	100.00	100	NO	
38	38 13C-1,2,3,4,6,9-HxCDF	7.33e5	7.33e5	0.51	NO	1.00	33.88	33.99	NO	1.000	1.000	100.00	100	YES OF	1
39	39 Total Tetra-Dioxins		9.81e5			0.983	24.62		NO	0.000		80.278		NO	
40	40 Total Penta-Dioxins		7.29e5			0.921	29.96		NO	0.000		210.81		NO	
41	41 Total Hexa-Dioxins		0.00e0			0.984	33.63		NO	0.000		240.25		NO	
42	42 Total Hepta-Dioxins		4.36e5			1.01	37.64		NO	0.000		128.81		NO	
43	43 Total Tetra-Furans		1.32 e 6			0.915	23.61		NO	0.000		45.287		NO	
44	44 1st Func. Penta-Furans		0.00e0			0.959	27.09		NO	0.000		88.593		NO	
45	45 Total Penta-Furans		0.00e0			0.959	29.27		NO	0.000		166.26		NO	
46	46 Total Hexa-Furans		0.00e0			1.09	33.56		NO	0.000		271.97		NO	
47	47 Total Hepta-Furans		0.00e0			1.05	37.83		NO	0.000		94.070		NO	

MassLynx 4.1 SCN815

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Dataset:

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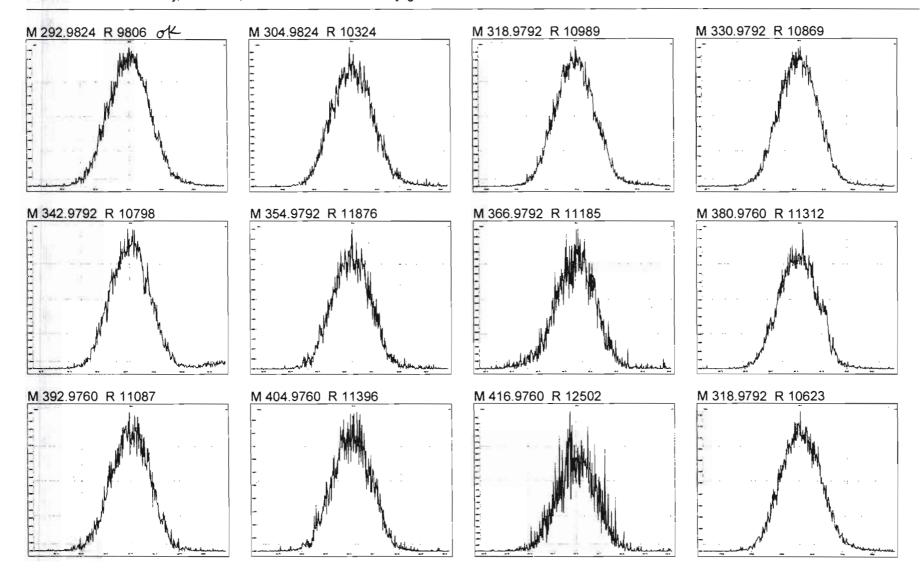
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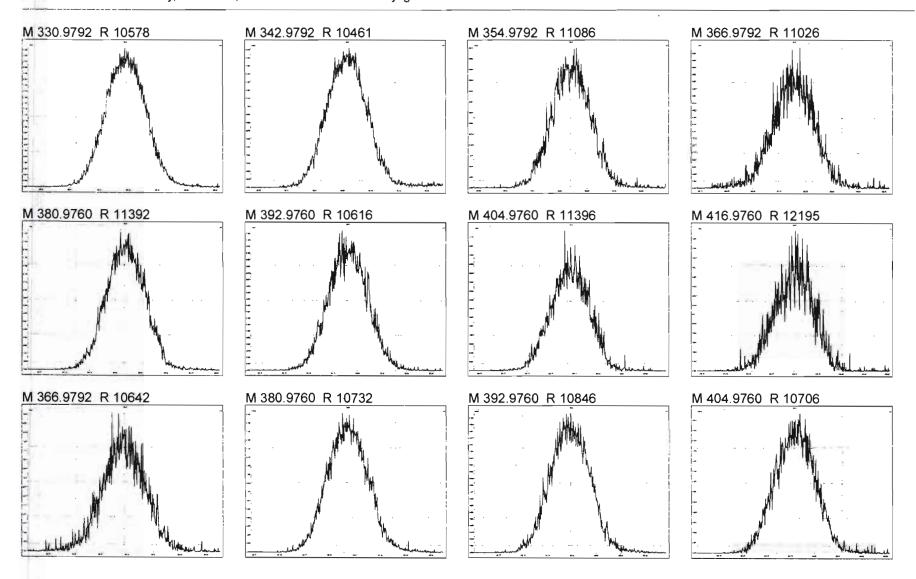
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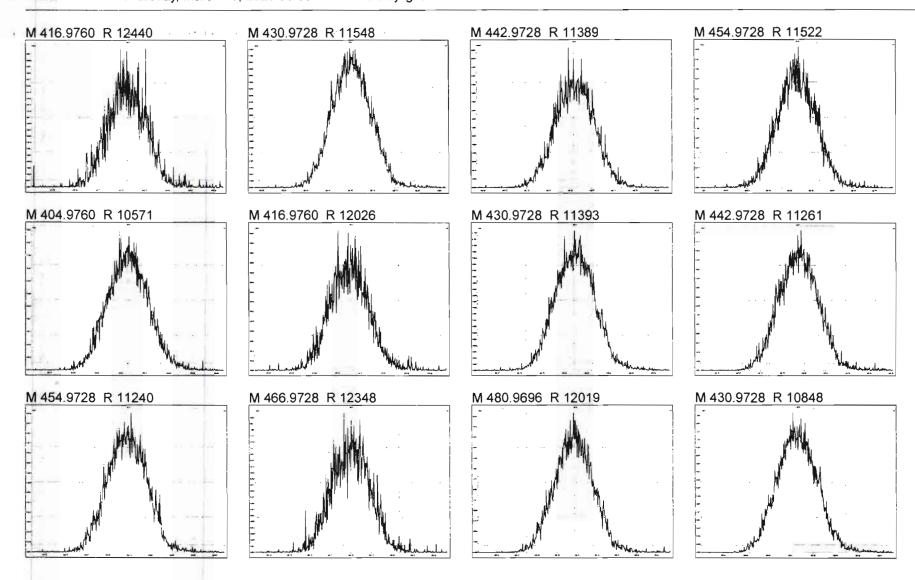
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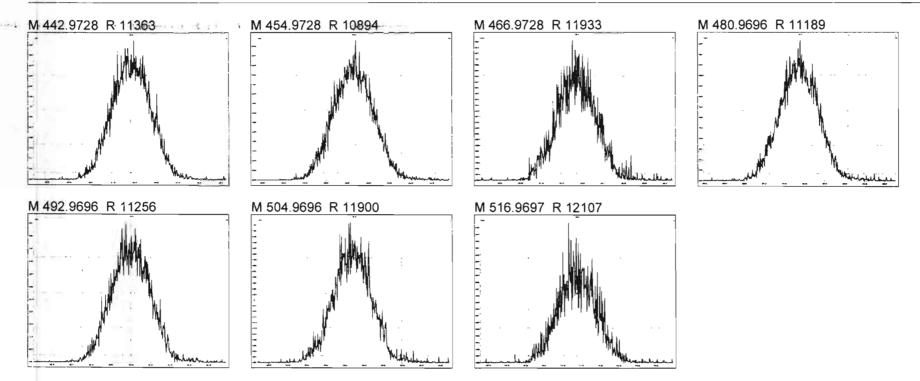
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1	200318R2_1	SOLVENT BLANK	19-Mar-20	03:33:06
2	200318R2_2	ST200318R2_1 1613 CS3 19L2305	19-Mar-20	04:19:20
3	200318R2_3	SOLVENT BLANK	19-Mar-20	05:06:59
4	200318R2_4	1904161-16RE5@2X PDI-066SC-A-06-07-191	. 19-Mar-20	05:54:38
5	200318R2_5	1903827-05RE3@2X PDI-062SC-B-00-02-191	. 19-Mar-20	06:42:16
6	200318R2_6	1903654-05RE3 PDI-075SC-B-00-02-191013	19-Mar-20	07:29:56
7	200318R2_7	1903654-08RE3 PDI-075SC-B-06-08-191013	19-Mar-20	08:17:35
8	200318R2_8	1903654-11RE3 PDI-076SC-B-05-07-191013	19-Mar-20	09:05:12
9	200318R2_9	2000440-01 PDI-066SC-A-09-10-191011 15.89	19-Mar-20	09:52:51
10	200318R2_10	2000440-02 PDI-066SC-A-10-11-191011 16.61	19-Mar-20	10:40:29
11	200318R2_11	2000440-03 PDI-066SC-A-11-12-191011 15.15	19-Mar-20	11:28:07
12	200318R2_12	2000440-04 PDI-066SC-A-12-13-191011 15.88	19-Mar-20	12:15:47
13	200318R2_13	B0C0038-DUP1 Duplicate 15.89	19-Mar-20	13:03:26
14	200318R2_14	2000440-05 PDI-066SC-A-13-14-191011 17.4	19-Mar-20	13:51:04
15	200318R2_15	2000440-06 PDI-066SC-A-14-15-191011 16.24	19-Mar-20	14:38:44

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Dataset:

U:\VG12.PRO\Results\200318R2\200318R2-CPSM.qld

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Thursday, March 19, 2020 07:43:36 Pacific Daylight Time Thursday, March 19, 2020 07:44:06 Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

1000	# Name	RT
1	1 1,3,6,8-TCDD (First)	21.42
2	2 1,2,8,9-TCDD (Last)	26.84
3	3 1,2,4,7,9-PeCDD (First)	28.76
4	4 1,2,3,8,9-PeCDD (Last)	31.46
5	5 1,2,4,6,7,9-HxCDD (First)	33.00
6	6 1,2,3,7,8,9-HxCDD (Last)	34.84
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.25
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.26
9	9 1,3,6,8-TCDF (First)	19.40
10	10 1,2,8,9-TCDF (Last)	26.99
11	11 1,3,4,6,8-PeCDF (First)	26.95
12	12 1,2,3,8,9-PeCDF (Last)	31.72
13	13 1,2,3,4,6,8-HxCDF (First)	32.44
14	14 1,2,3,7,8,9-HxCDF (Last)	35.17
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.87
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.91

Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

Dataset:

U:\VG12.PRO\Results\200318R2\200318R2-CPSM.qld

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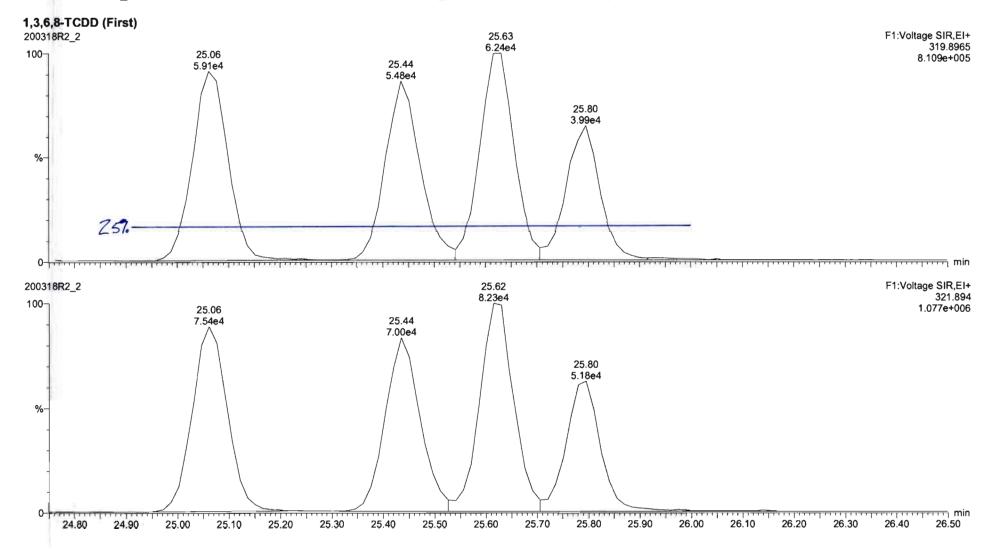
GRB 03/19/2020

Page 1 of 1

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Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200318R2_2, Date: 19-Mar-2020, Time: 04:19:20, ID: ST200318R2_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Work Order 1903654

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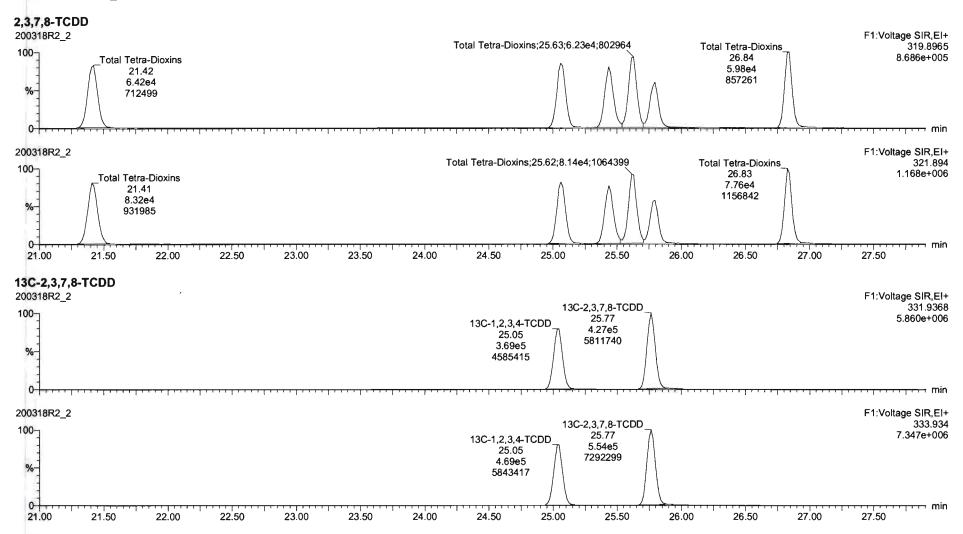
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Thursday, March 19, 2020 07:42:46 Pacific Daylight Time Thursday, March 19, 2020 07:43:27 Pacific Daylight Time

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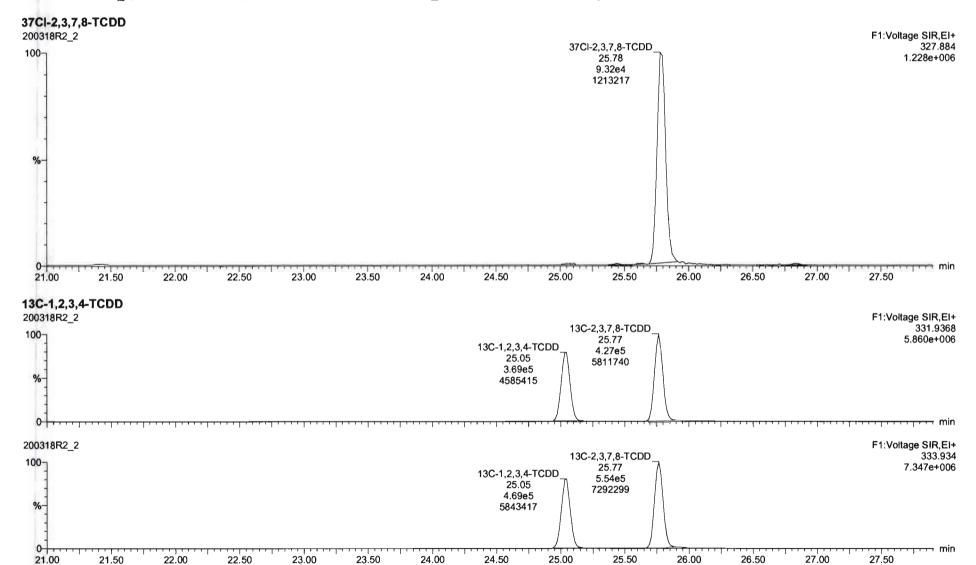
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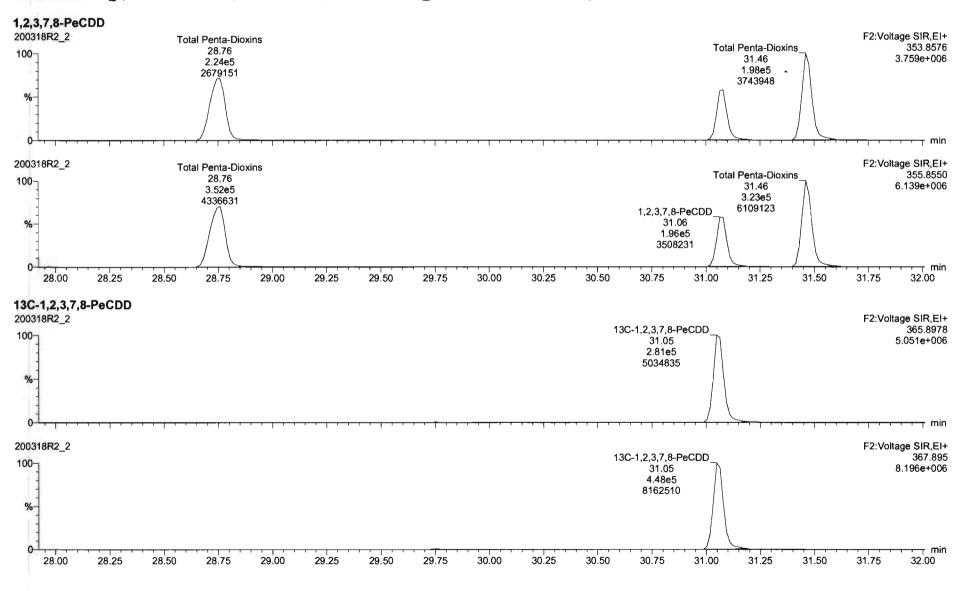
Quantify Sample Report Vista Analytical Laboratory

Dataset:

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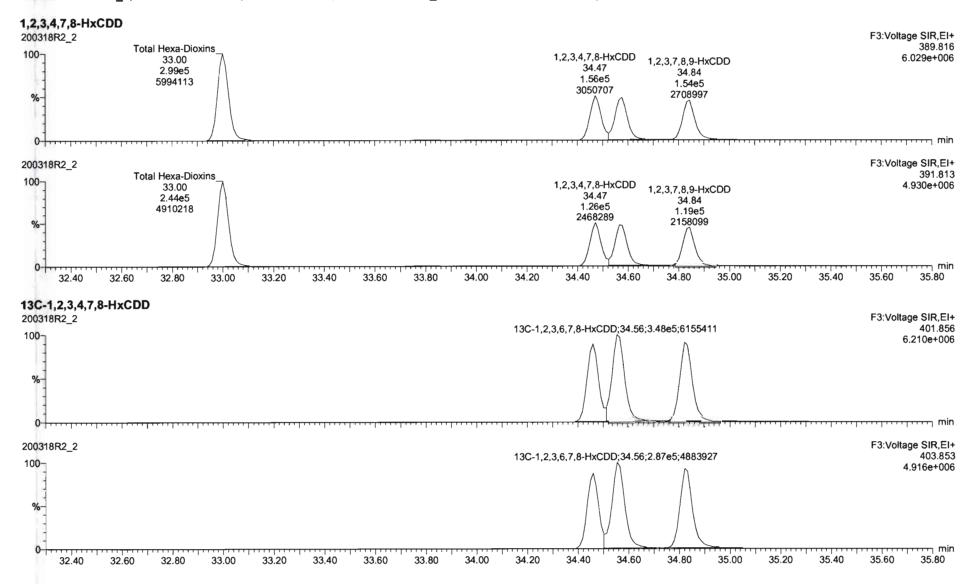
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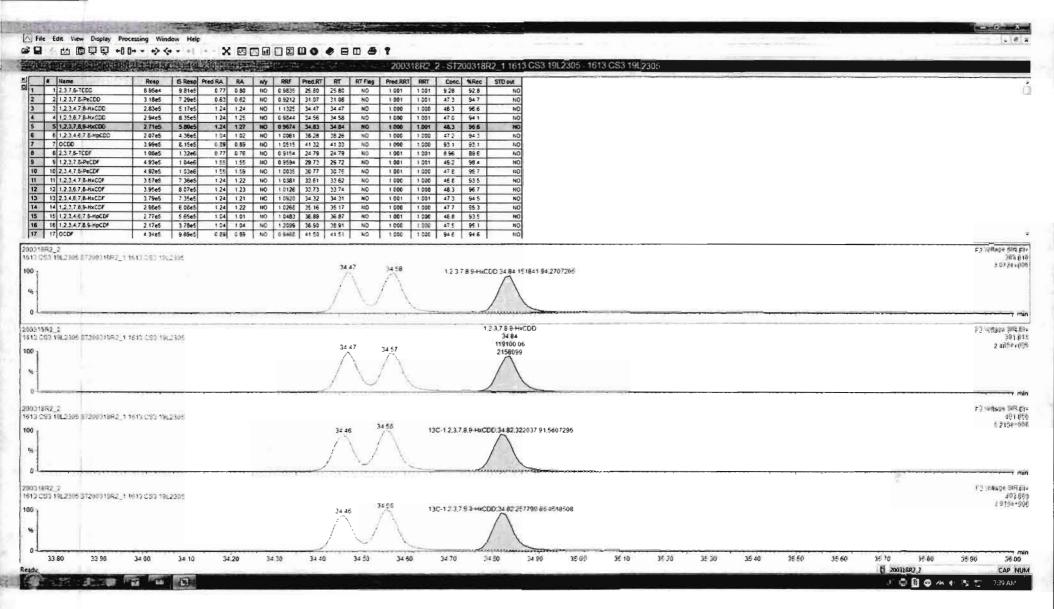
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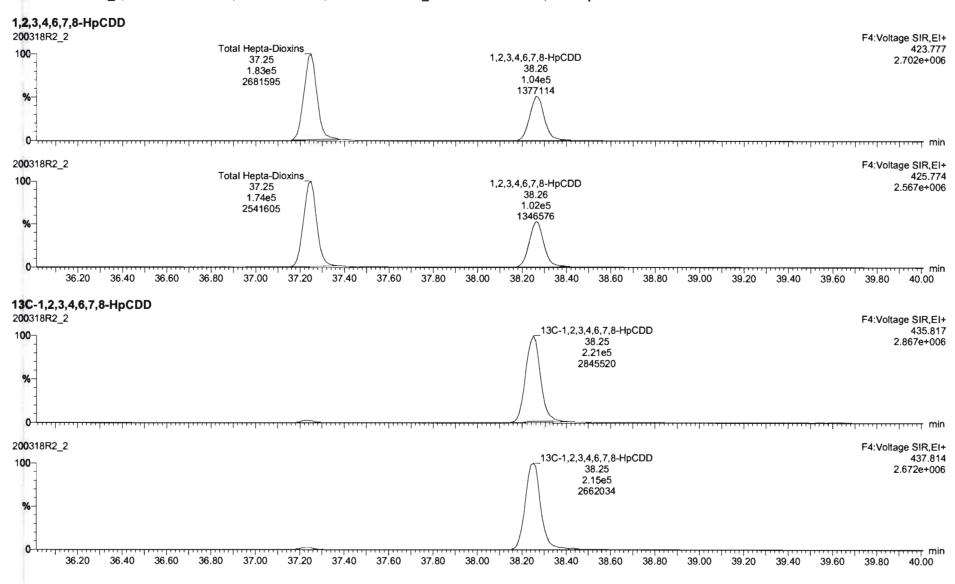


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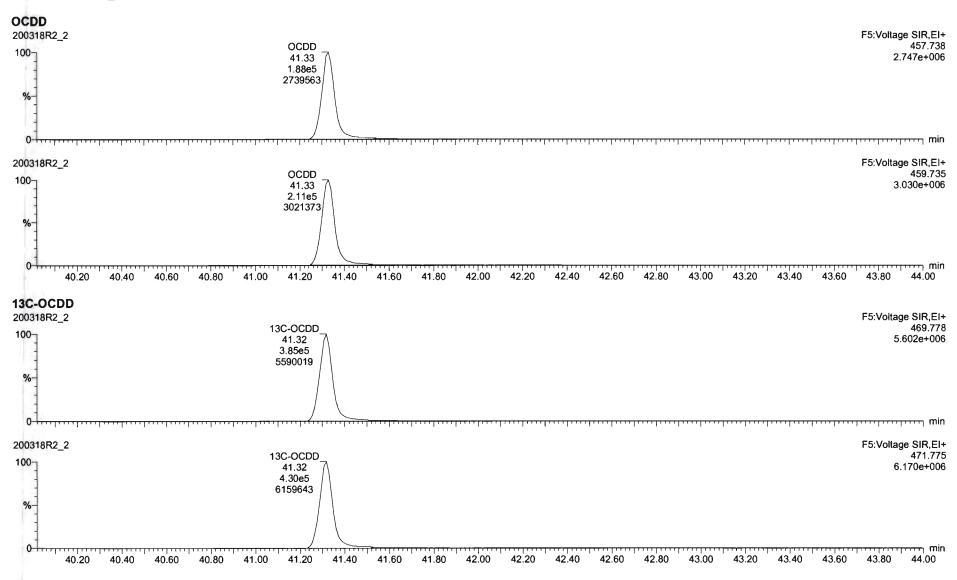
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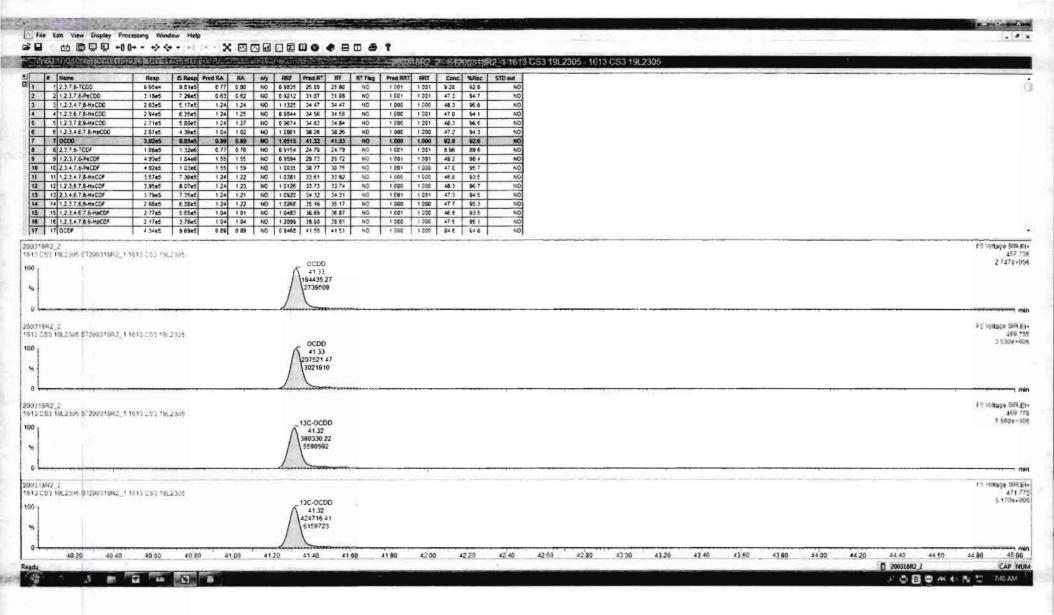


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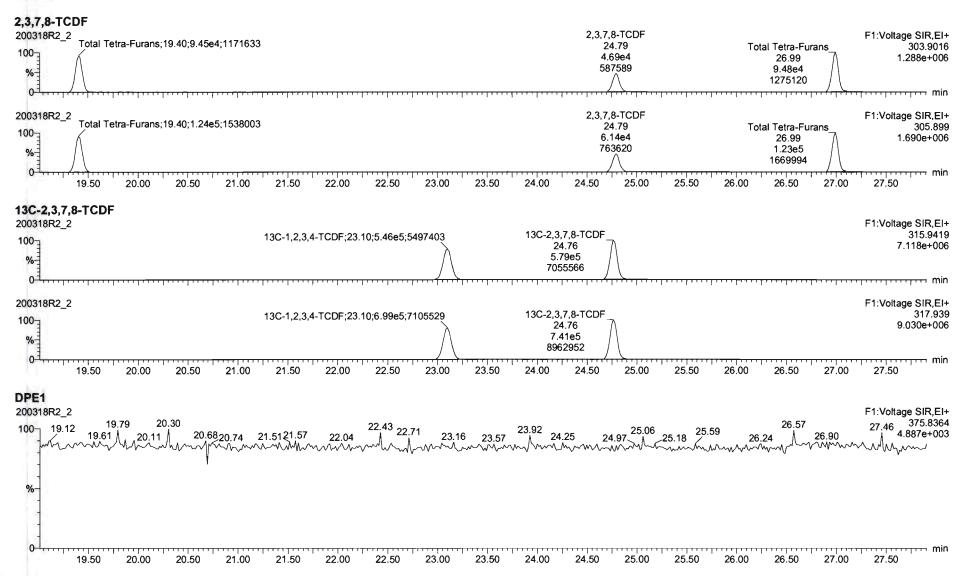




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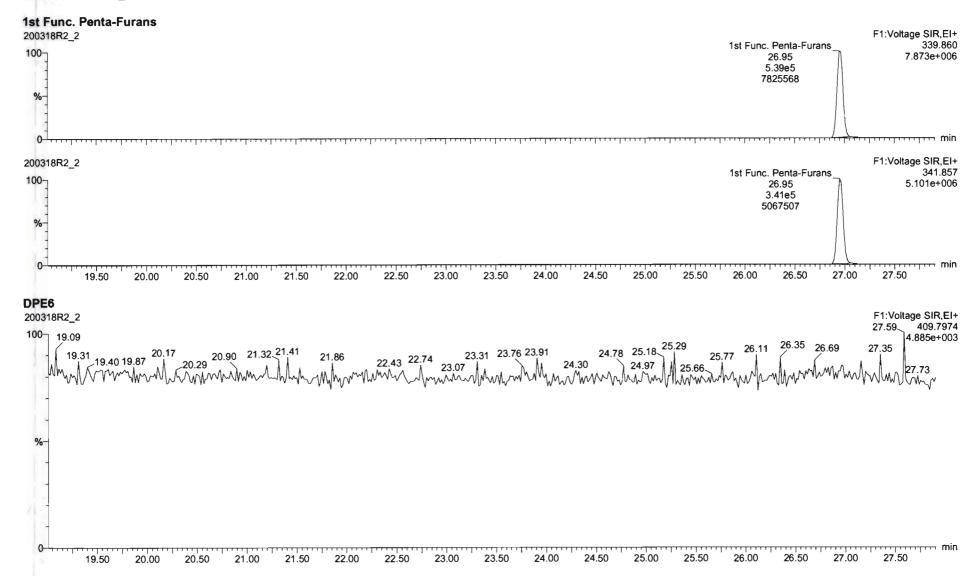
MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

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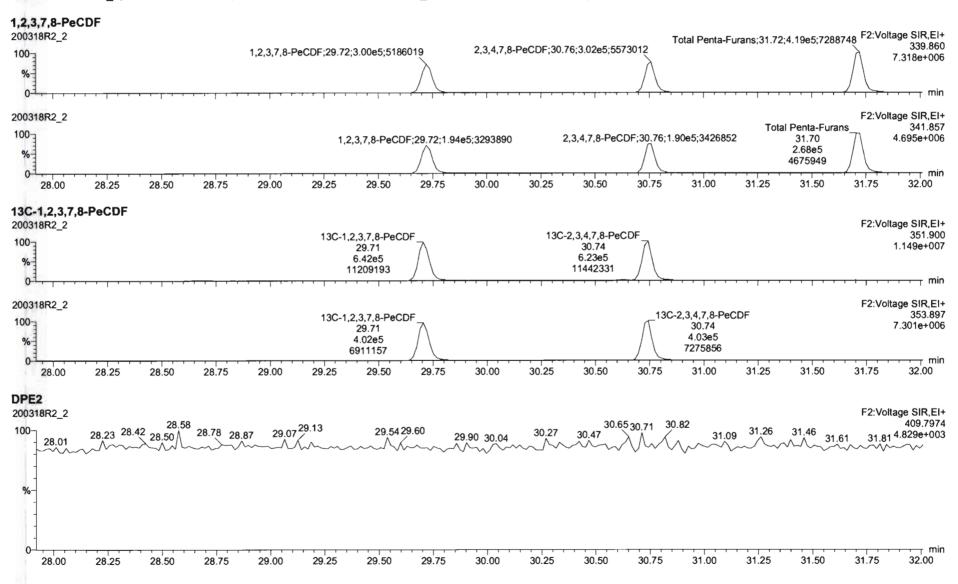
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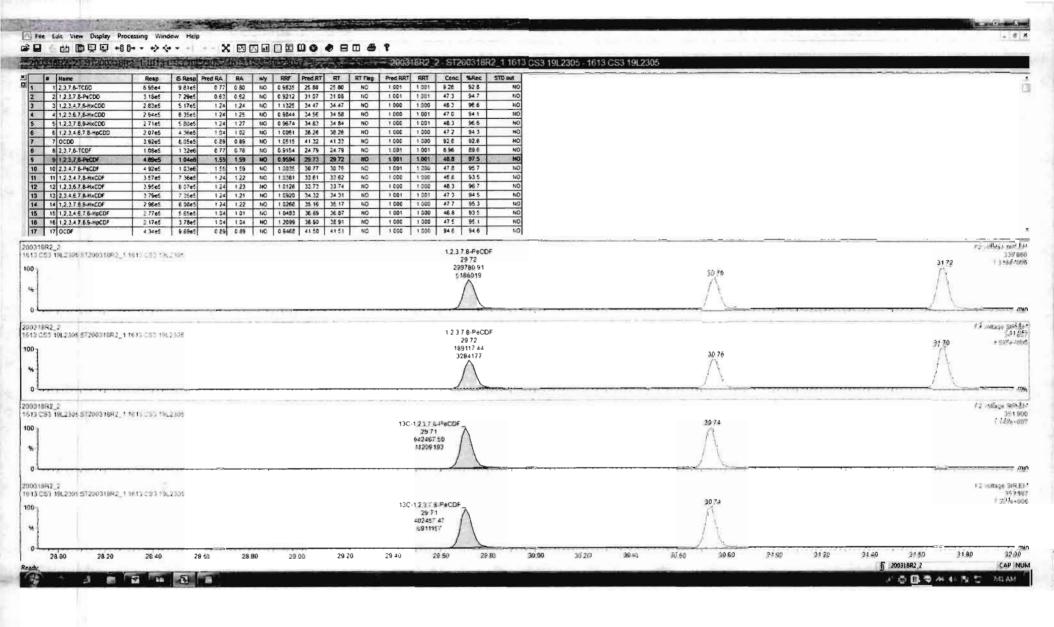


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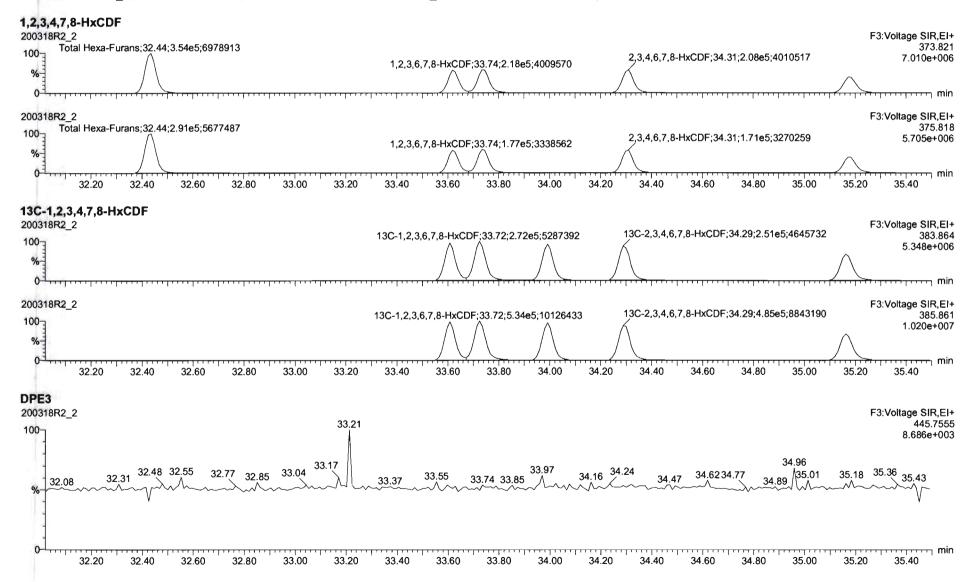




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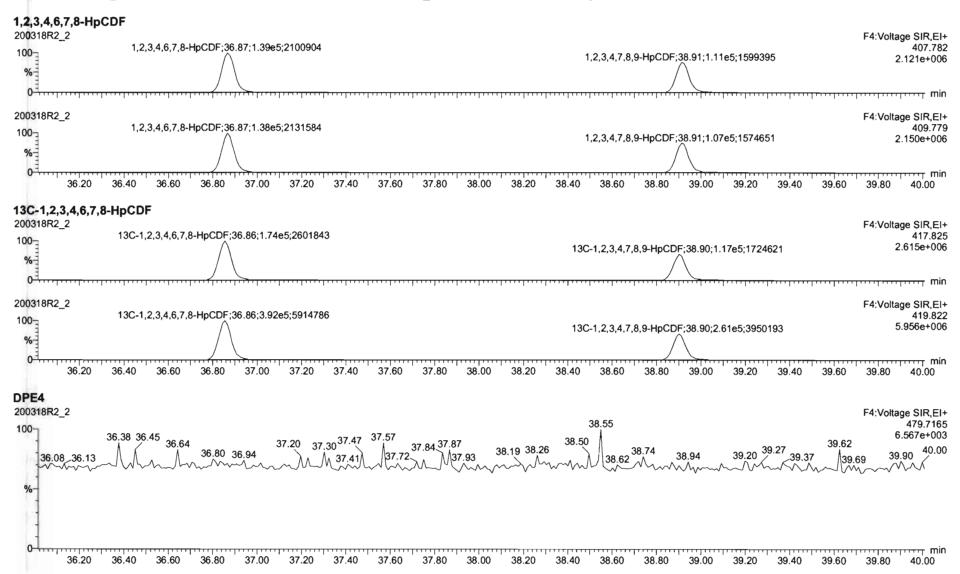
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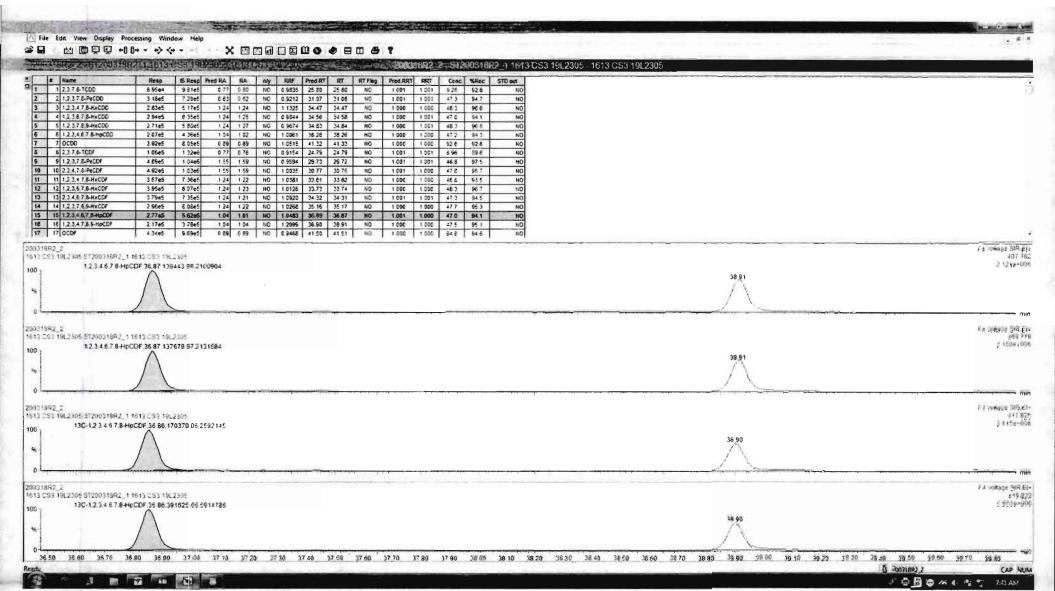
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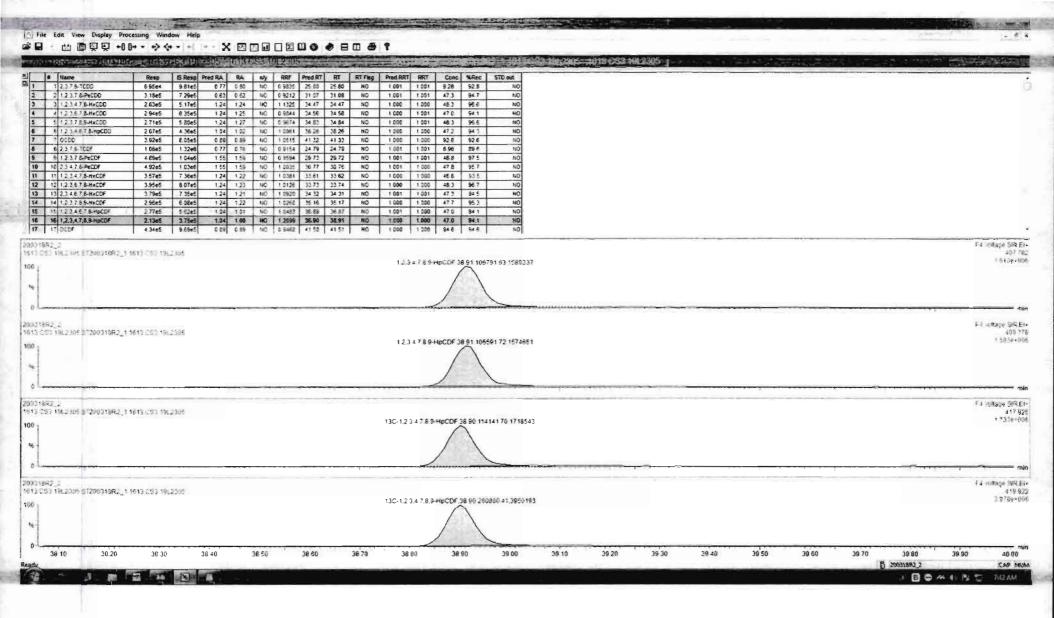
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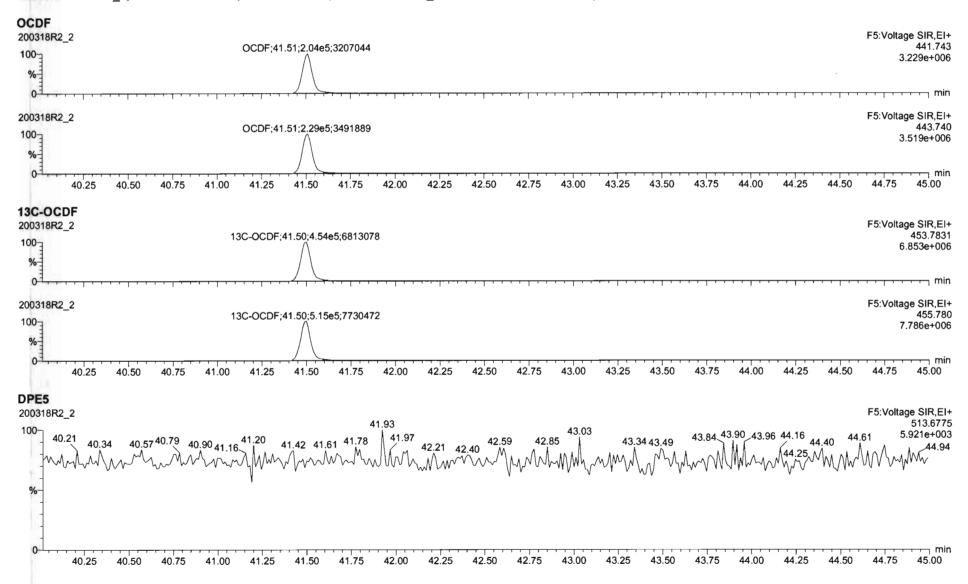
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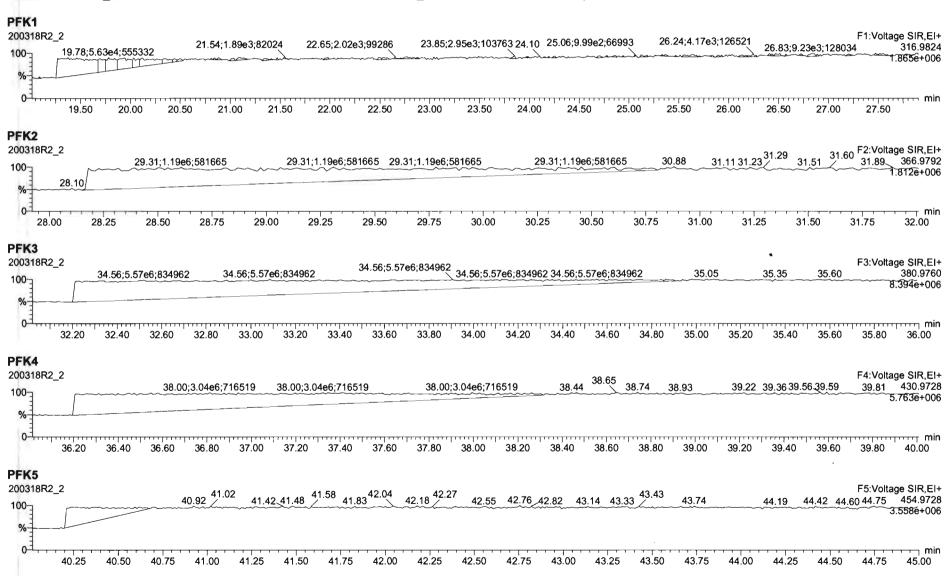
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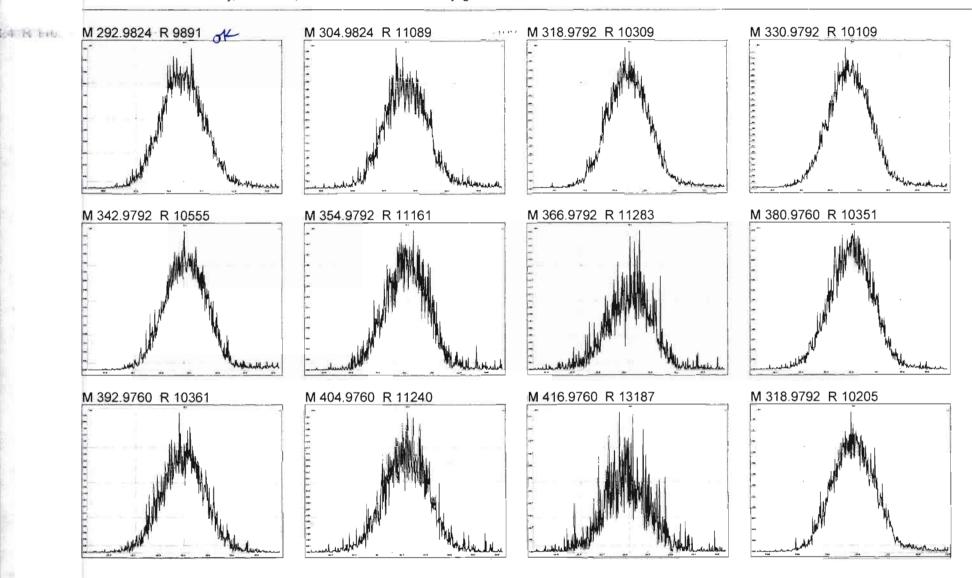
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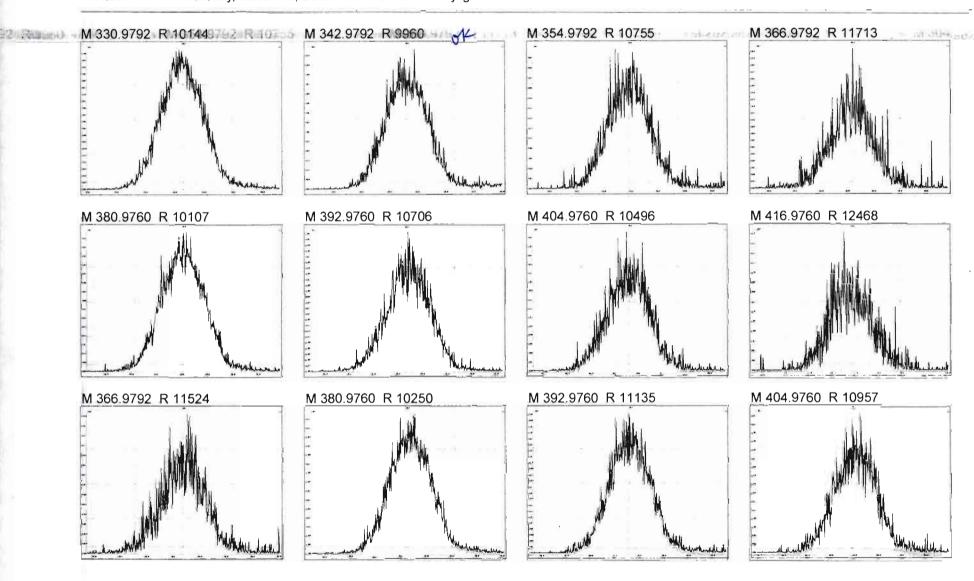


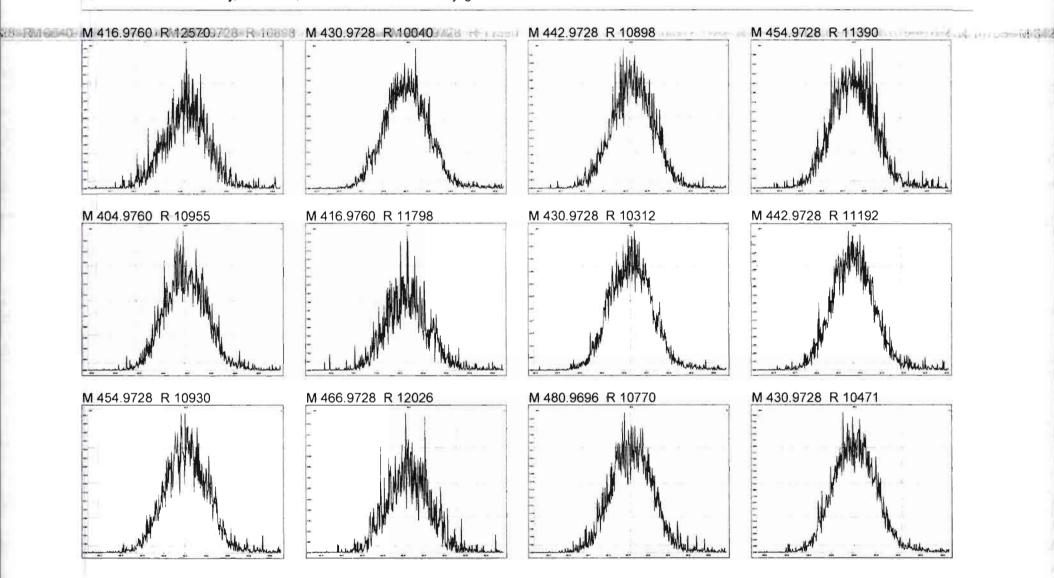
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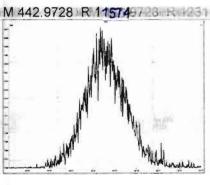
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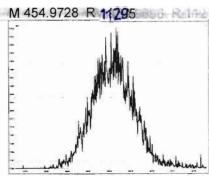


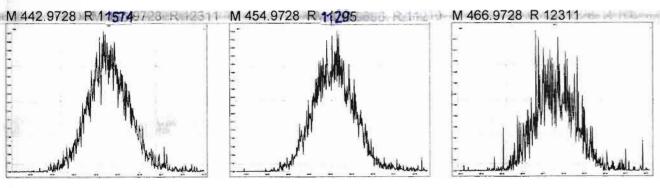


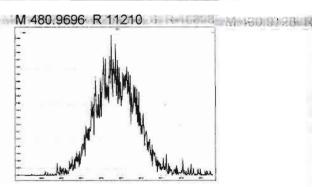


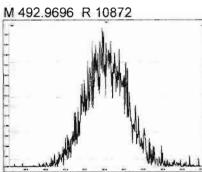


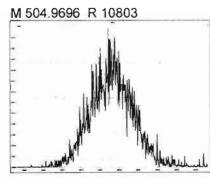


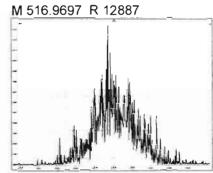












HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST206319121-2			Reviewed By: C7 03/20/2020		
200			Initials & Date		
End Calibration ID:NA	_				
	Beg.	<u>End</u>		Beg.	<u>End</u>
Ion abundance within QC limits?	>	14	Mass resolution >	V	
Concentrations within criteria?	7	ф	□ 5k □ 6-8K □ 8K ≰10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25%	7		Intergrated peaks display correctly?	V	NA
First and last eluters present?	I	Ф	GC Break <20%		
Retention Times within criteria?			8280 CS1 End Standard:		
Verification Std. named correctly?			- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		NA
(ST-Year-Month-Day-VG ID)					
Forms signed and dated?	\supset	ф	Comments:		
Correct ICAL referenced?	GRB				
Run Log:					
- Correct instrument listed?					
- Samples within 12 hour clock?	N	N			
- Bottle position verfied?	GRI	3			

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Page: 1 of 1

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\200319R1\200319R1-2.qld

Last Altered:

Friday, March 20, 2020 07:32:19 Pacific Daylight Time

Printed:

Friday, March 20, 2020 07:33:16 Pacific Daylight Time

GRB 03/10/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	7.44e4	8.38e5	0.76	NO	0.983	25.80	25.80	NO	1.001	1.001	9.0225	90.2	NO
2	2 1,2,3,7,8-PeCDD	2.66e5	6.07e5	0.62	NO	0.921	31.09	31.08	NO	1.001	1.000	47.654	95.3	NO
3	3 1,2,3,4,7,8-HxCDD	2.44e5	4.59e5	1.26	NO	1.13	34.49	34.49	NO	1.000	1.000	46.982	94.0	NO
4	4 1,2,3,6,7,8-HxCDD	2.52e5	5.72e5	1.25	NO	0.984	34.58	34.59	NO	1.000	1.000	44.743	89.5	NO
5	5 1.2,3,7.8,9-HxCDD	2.32e5	5.19e5	1.21	NO	0.967	34.85	34.85	NO	1.000	1.000	46.172	92.3	NO
6	6 1,2,3,4,6,7,8-HpCDD	2.01e5	4.40e5	1.02	NO	1.01	38.27	38.28	NO	1.000	1.001	45.529	91.1	NO
7	7 OCDD	4.02e5	8.54e5	0.89	NO	1.05	41.33	41.34	NO	1.000	1.000	89.475	89.5	NO
8	8 2,3,7,8-TCDF	8.50e4	1.10e6	0.74	NO	0.915	24.79	24.79	NO	1.001	1.001	8.4712	84.7	NO
9	9 1,2,3,7,8-PeCDF	3.94e5	8.92e5	1.56	NO	0.959	29.74	29.74	NO	1.001	1.001	46.060	92.1	NO
10	10 2,3,4,7,8-PeCDF	3.93e5	8.47e5	1.53	NO	1.00	30.79	30.77	NO	1.001	1.000	46.261	92.5	NO
11	11 1,2,3,4,7,8-HxCDF	2.84e5	6.03e5	1.22	NO	1.04	33.63	33.64	NO	1.000	1.000	45.427	90.9	NO
12	12 1,2,3,6,7,8-HxCDF	3.09e5	6.67e5	1.23	NO	1.01	33.76	33.76	NO	1.000	1.000	45.765	91.5	NO
13	13 2,3,4,6,7,8-HxCDF	3.01e5	6.18e5	1.19	NO	1.09	34.34	34.32	NO	1.001	1.000	44.647	89.3	NO
14	14 1,2,3,7,8,9-HxCDF	2.41e5	5.18e5	1.21	NO	1.03	35.18	35.19	NO	1.000	1.000	45.397	90.8	NO
15	15 1,2,3,4,6,7,8-HpCDF	2.47e5	5.19e5	0.99	NO	1.05	36.90	36.89	NO	1.001	1.001	45.357	90.7	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.90e5	3.50e5	1.03	NO	1.21	38.91	38.93	NO	1.000	1.001	44.905	89.8	NO
17	17 OCDF	4.20e5	9.86e5	0.88	NO	0.947	41.50	41.51	NO	1.000	1.000	89.952	90.0	NO
18	18 13C-2,3,7.8-TCDD	8.38e5	7.15e5	0.77	NO	1.18	25.75	25.77	NO	1.029	1.029	98.980	99.0	NO
19	19 13C-1,2,3,7,8-PeCDD	6.07e5	7.15e5	0.63	NO	0.864	30.94	31.06	NO	1.236	1.241	98.166	98.2	NO
20	20 13C-1,2,3,4,7,8-HxCDD	4.59e5	6.17e5	1.26	NO	0.754	34.48	34.48	NO	1.014	1.014	98.777	98.8	NO
21	21 13C-1,2,3,6,7,8-HxCDD	5.72e5	6.17e5	1.26	NO	0.925	34.59	34.58	NO	1.017	1.017	100.26	100	NO
22	22 13C-1,2,3,7,8,9-HxCDD	5.19e5	6.17e5	1.25	NO	0.829	34.86	34.84	NO	1.025	1.024	101.36	101	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.40e5	6.17e5	1.04	NO	0.598	38.32	38.26	NO	1.127	1.125	119.15	119	NO
24	24 13C-OCDD	8.54e5	6.17e5	0.89	NO	0.571	41.47	41.33	NO	1.219	1.215	242.31	121	NO
25	25 13C-2,3,7,8-TCDF	1.10e6	1.05e6	0.77	NO	1.09	24.77	24.76	NO	0.990	0.989	96.189	96.2	NO
26	26 13C-1,2,3,7,8-PeCDF	8.92e5	1.05e6	1.57	NO	0.876	29.61	29.72	NO	1.183	1.187	97.189	97.2	NO
27	27 13C-2,3,4,7,8-PeCDF	8.47e5	1.05e6	1.60	NO	0.844	30.62	30.76	NO	1.223	1.229	95.949	95.9	NO
28	28 13C-1,2,3,4,7,8-HxCDF	6.03e5	6.17e5	0.51	NO	1.00	33.63	33.63	NO	0.989	0.989	97.759	97.8	NO
29	29 13C-1,2,3,6,7,8-HxCDF	6.67e5	6.17e5	0.51	NO	1.12	33.74	33.75	NO	0.992	0.992	96.726	96.7	NO
30	30 13C-2,3,4,6,7,8-HxCDF	6.18e5	6.17e5	0.51	NO	1.04	34.32	34.31	NO	1.009	1.009	96.768	96.8	NO
31	31 13C-1,2,3,7,8,9-HxCDF	5.18e5	6.17e5	0.50	NO	0.873	35.20	35.18	NO	1.035	1.034	96.135	96.1	NO

U:\VG12.PRO\Results\200319R1\200319R1-2.qld

Last Altered:

Friday, March 20, 2020 07:32:19 Pacific Daylight Time

Printed:

Friday, March 20, 2020 07:33:16 Pacific Daylight Time

Name: 200319R1_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

2.0	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.19e5	6.17e5	0.44	NO	0.771	36.91	36.87	NO	1.085	1.084	109.14	109	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.50e5	6.17e5	0.44	NO	0.519	39.00	38.91	NO	1.147	1.144	109.34	109	NO
34	34 13C-OCDF	9.86e5	6.17e5	0.87	NO	0.696	41.65	41.50	NO	1.225	1.220	229.49	115	NO
35	35 37Cl-2,3,7,8-TCDD	7.80e4	7.15e5			1.17	25.76	25.78	NO	1.029	1.030	9.2878	92.9	NO
36	36 13C-1,2,3,4-TCDD	7.15e5	7.15e5	0.80	NO	1.00	25.05	25.03	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.05e6	1.05e6	0.78	NO	1.00	23.19	23.09	NO	1.000	1.000	100.00	100	NO ,
38	38 13C-1,2,3,4,6,9-HxCDF	6.17e5	6.17e5	0.51	NO	1.00	33.88	34.01	NO	1.000	1.000	100.00	100	YES
39	39 Total Tetra-Dioxins		8.38e5			0.983	24.62		NO	0.000		80.091		NO
40	40 Total Penta-Dioxins		6.07e5			0.921	29.96		NO	0.000		213.07		NO
41	41 Total Hexa-Dioxins		0.00e0			0.984	33.63		NO	0.000		225.46		NO
42	42 Total Hepta-Dioxins		4.40e5			1.01	37.64		NO	0.000		127.10		NO
43	43 Total Tetra-Furans		1.10e6			0.915	23.61		NO	0.000		41.677		NO
44	44 1st Func. Penta-Furans		0.00e0			0.959	27.09		NO	0.000		89.312		NO
45	45 Total Penta-Furans		0.00e0			0.959	29.27		NO	0.000		159.60		NO
46	46 Total Hexa-Furans		0.00e0			1.09	33.56		NO	0.000		254.91		NO
47	47 Total Hepta-Furans		0.00e0			1.05	37.83		NO	0.000		90.446		NO

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Page 1 of 1

Dataset:

Untitled

Last Altered: Printed:

Friday, March 20, 2020 07:40:32 Pacific Daylight Time Friday, March 20, 2020 07:40:36 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Compound name: 2,3,7,8-TCDD

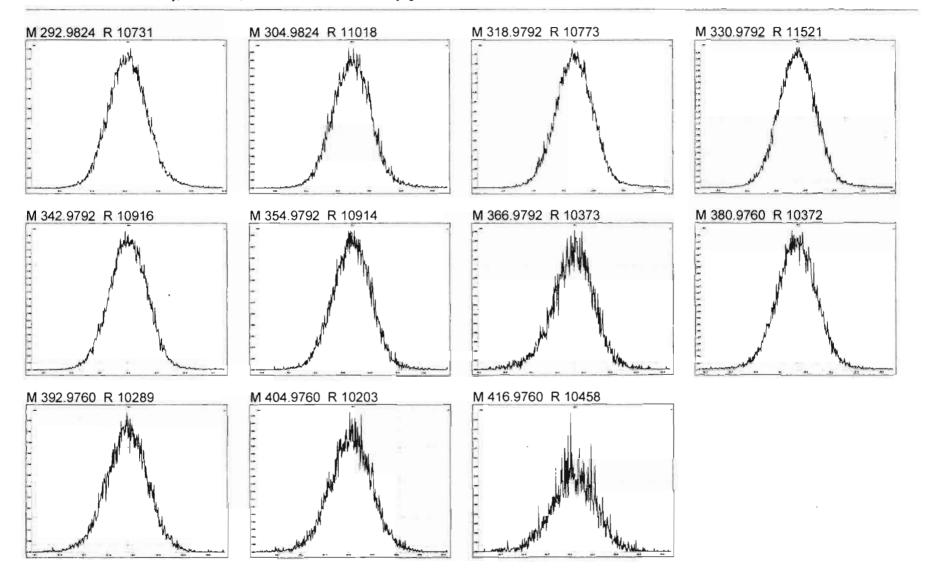
1000	Name	ID Sales say a legited to	Acq.Date	Acq.Time
1	(a)200319R1_1	ST200319R1_1 1613 CS3 19L2305	19-Mar-20	16:18:06
2	©200319R1_2	ST200319R1_2 1613 CS3 19L2305	19-Mar-20	17:08:32
3	200319R1_3	B0B0187-BS1 OPR 10	19-Mar-20	17:54:46
4	200319R1_4	B0C0040-BS1 OPR 10	19-Mar-20	18:42:22
5	200319R1_5	SOLVENT BLANK	19-Mar-20	19:30:06
6	200319R1_6	B0B0187-BLK1 Method Blank 10	19-Mar-20	20:17:51
7	200319R1_7	B0C0040-BLK1 Method Blank 10	19-Mar-20	21:05:36
8	200319R1_8	2000440-05 PDI-066SC-A-13-14-191011 17.4	19-Mar-20	21:53:14
9	200319R1_9	B0B0187-DUP1 Duplicate 12.19	19-Mar-20	22:40:53
10	200319R1_10	2000195-01 PDI-062SC-A-10-11-191023 12.2	19-Mar-20	23:28:38
11	200319R1_11	2000195-02 PDI-066SC-A-07-08-191011 16.75	20-Mar-20	00:16:22
12	200319R1_12	2000195-03 PDI-066SC-A-08-09-191011 17.12	20-Mar-20	01:04:01
13	200319R1_13	2000195-04 PDI-067SC-A-06-07-191010 13.34	20-Mar-20	01:51:41
14	200319R1_14	1903654-05RE3@5X PDI-075SC-B-00-02-191.	. 20-Mar-20	02:39:26
15	200319R1_15	1903654-08RE3@5X PDI-075SC-B-06-08-191.	. 20-Mar-20	03:27:05
16	200319R1_16	1903654-11RE3@5X PDI-076SC-B-05-07-191.	. 20-Mar-20	04:14:45

(B) USED FOR RUN

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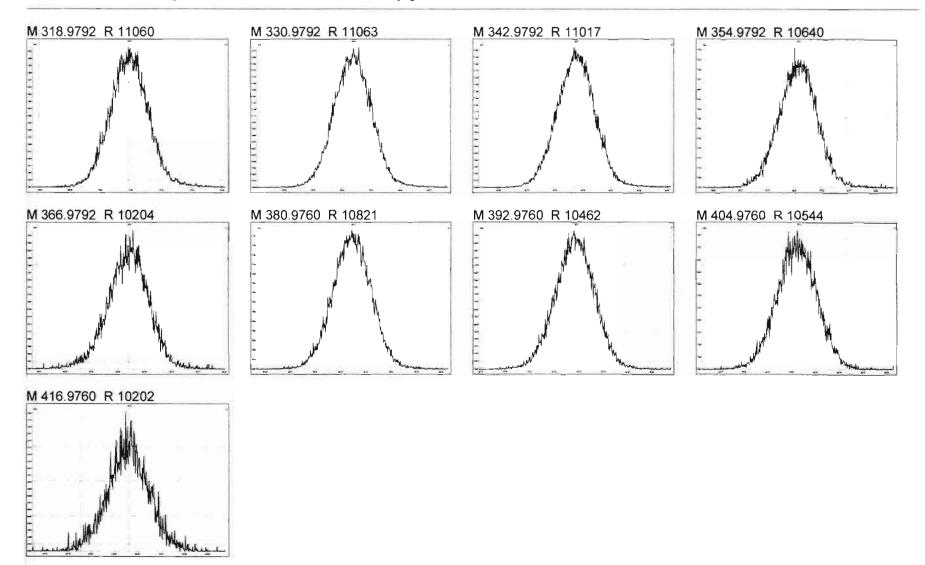
Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:



Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

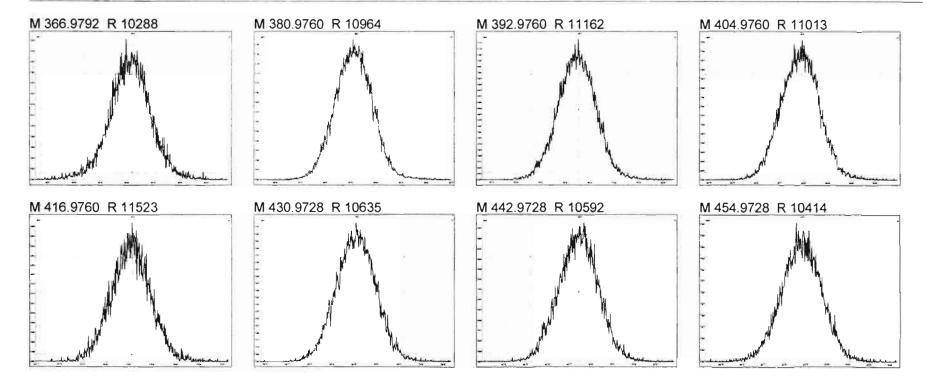
Printed:



Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed:

Thursday, March 19, 2020 16:14:09 Pacific Daylight Time

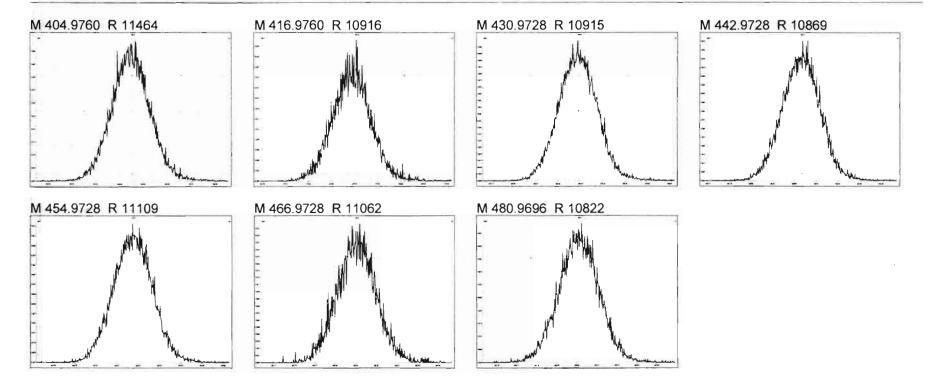


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed:

Thursday, March 19, 2020 16:14:39 Pacific Daylight Time

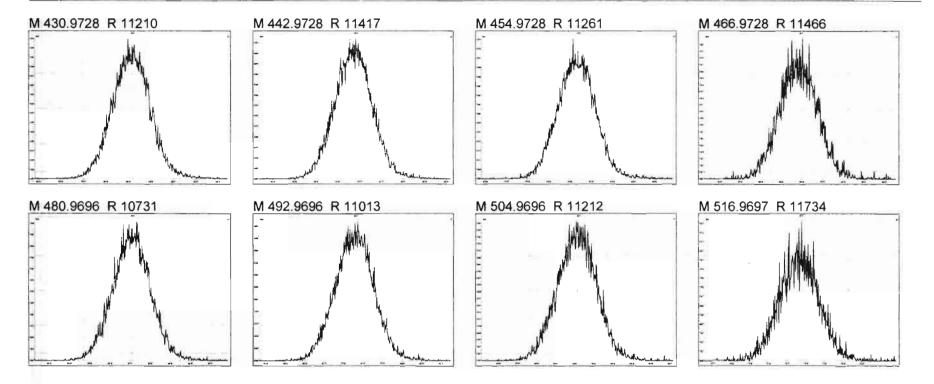


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Thursday, March 19, 2020 16:15:29 Pacific Daylight Time



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MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

Untitled

Last Altered: Printed:

Friday, March 20, 2020 07:35:30 Pacific Daylight Time Friday, March 20, 2020 07:38:43 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 15 Mar 2020 13:05:01

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200319R1_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

g YE R	# Name	RT
1	1 1,3,6,8-TCDD (First)	21.39
2	2 1.2.8,9-TCDD (Last)	26.83
3	3 1,2,4,7,9-PeCDD (First)	28.76
4	4 1,2,3,8,9-PeCDD (Last)	31.48
5	5 1,2,4,6,7,9-HxCDD (First)	33.02
6	6 1,2,3,7,8,9-HxCDD (Last)	34.85
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.26
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.28
9	9 1,3,6,8-TCDF (First)	19.39
10	10 1,2,8,9-TCDF (Last)	26.99
11	11 1,3,4,6,8-PeCDF (First)	26.96
12	12 1,2,3,8,9-PeCDF (Last)	31.74
13	13 1,2,3,4,6,8-HxCDF (First)	32.45
14	14 1,2,3,7,8,9-HxCDF (Last)	35.19
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.89
16	16 1,2,3.4,7,8,9-HpCDF (Last)	38.93

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Quantify Sample Report

MassLynx 4.1 SCN815

Page 1 of 1

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered:

Friday, March 20, 2020 07:35:30 Pacific Daylight Time

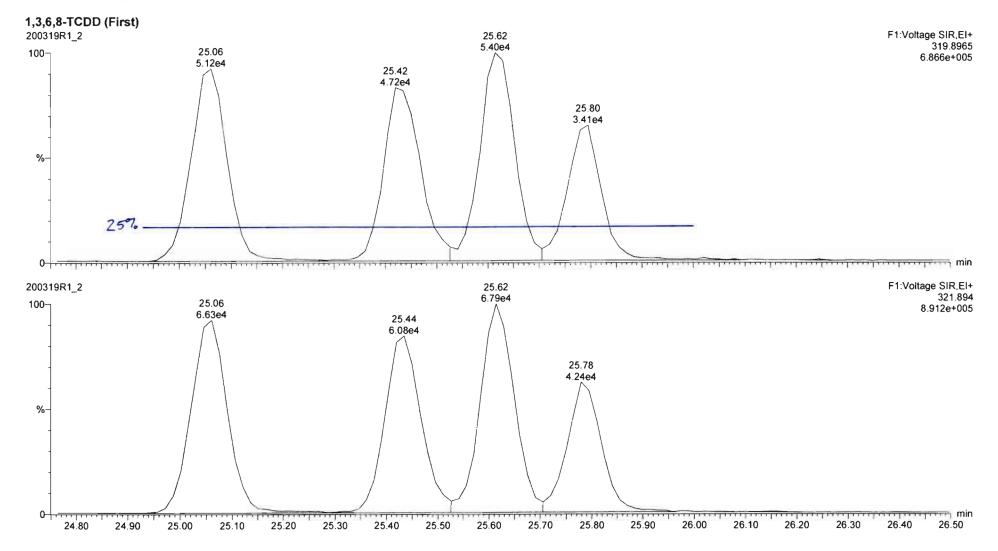
Printed:

Friday, March 20, 2020 07:38:43 Pacific Daylight Time

GRB 03/20/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 15 Mar 2020 13:05:01

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02



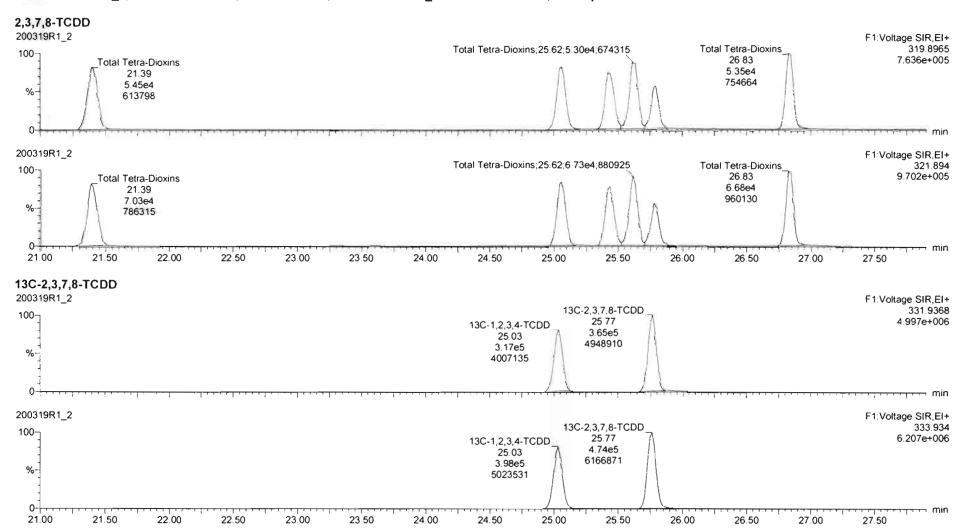
Page 1 of 13

Dataset:

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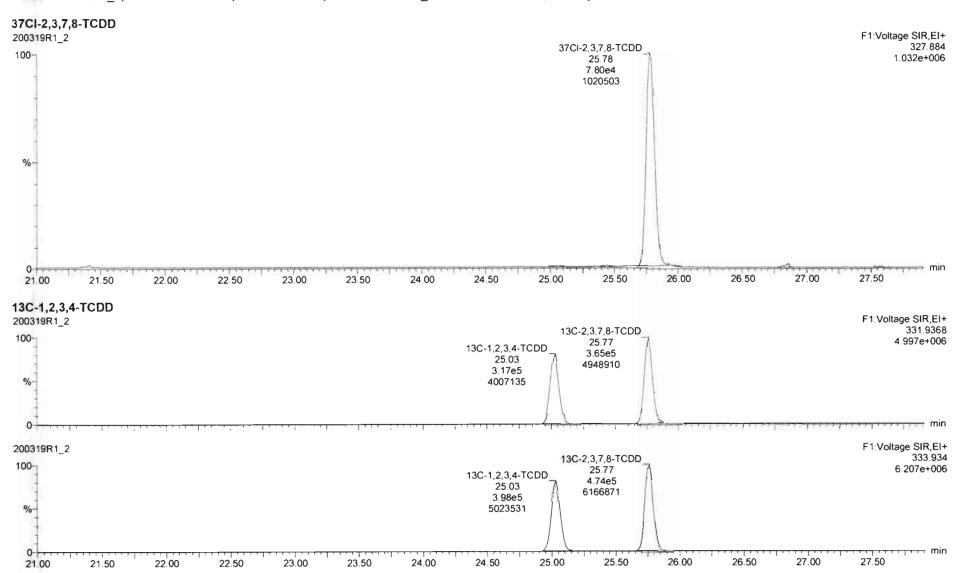
Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02



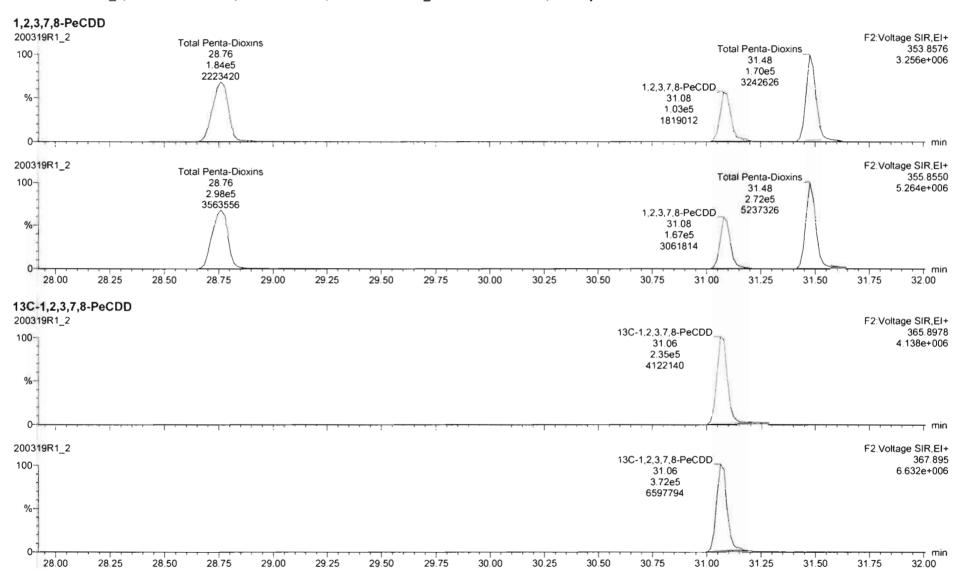
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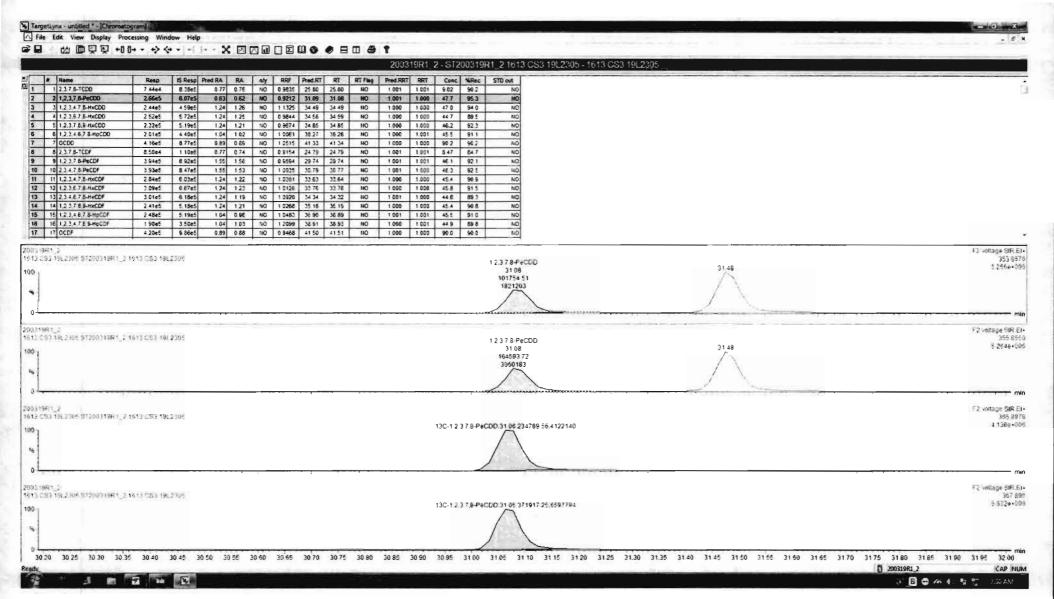
Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time



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Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time



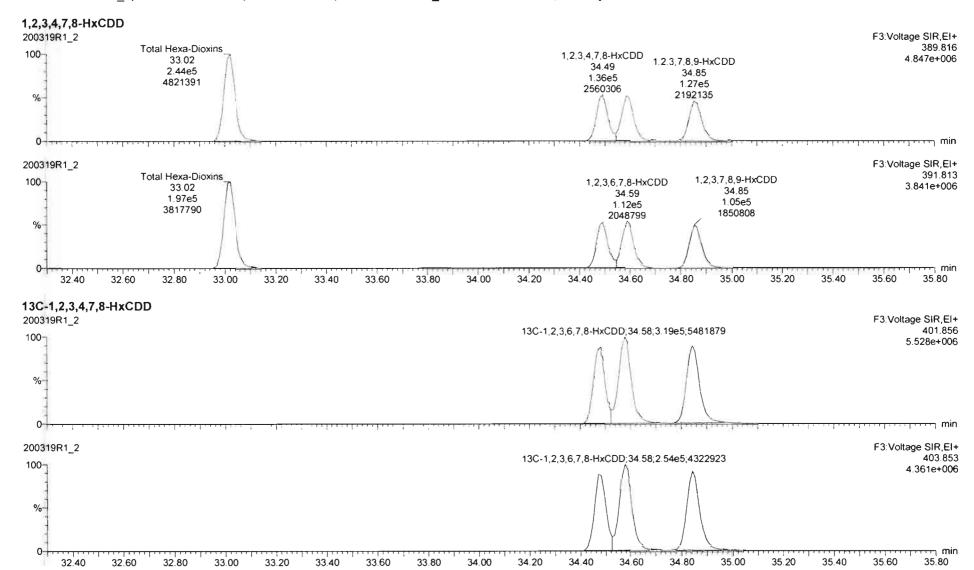


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Untitled

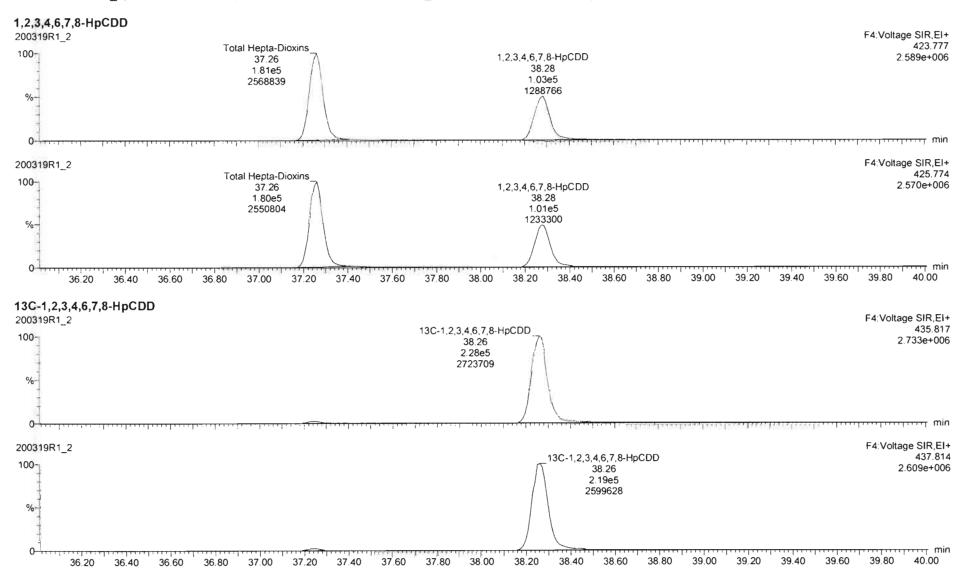
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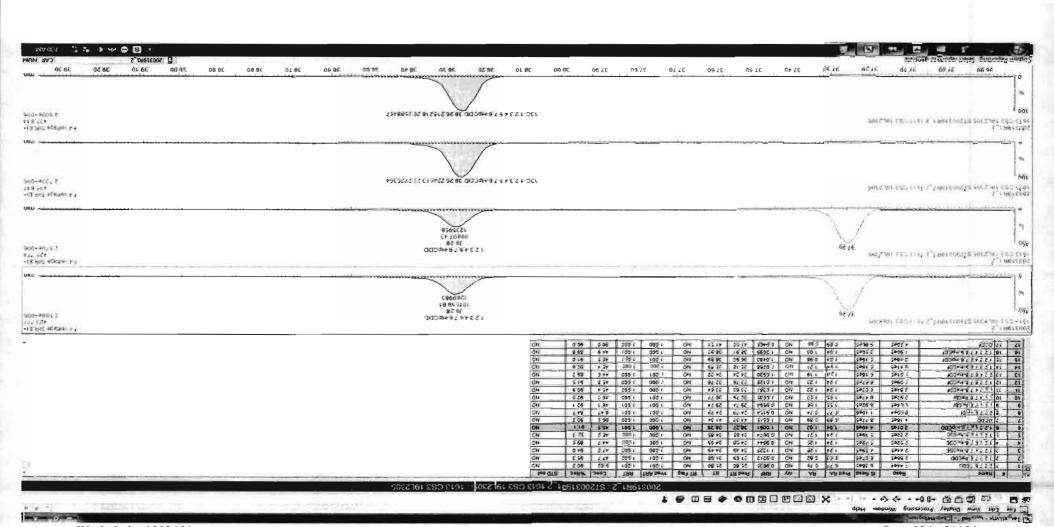
Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time



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Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

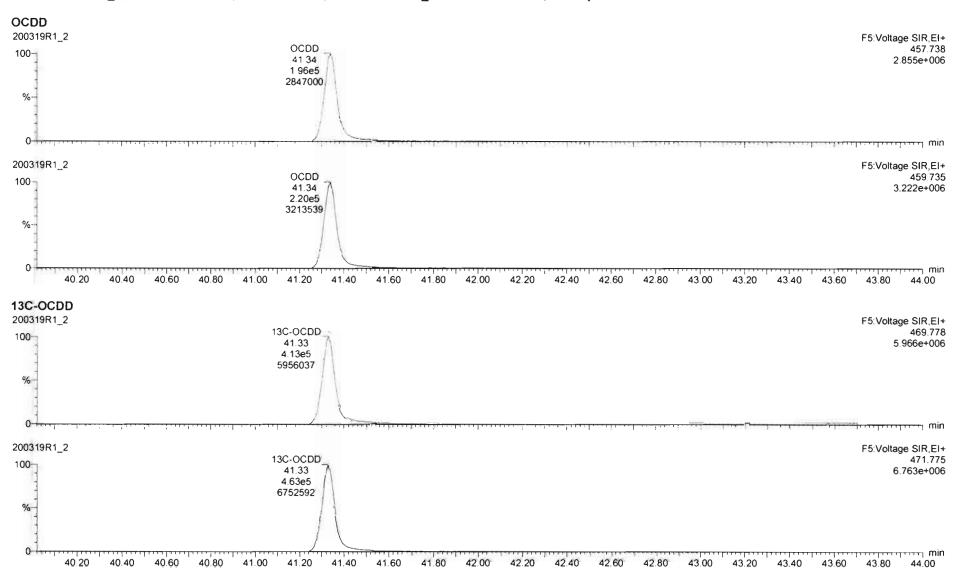




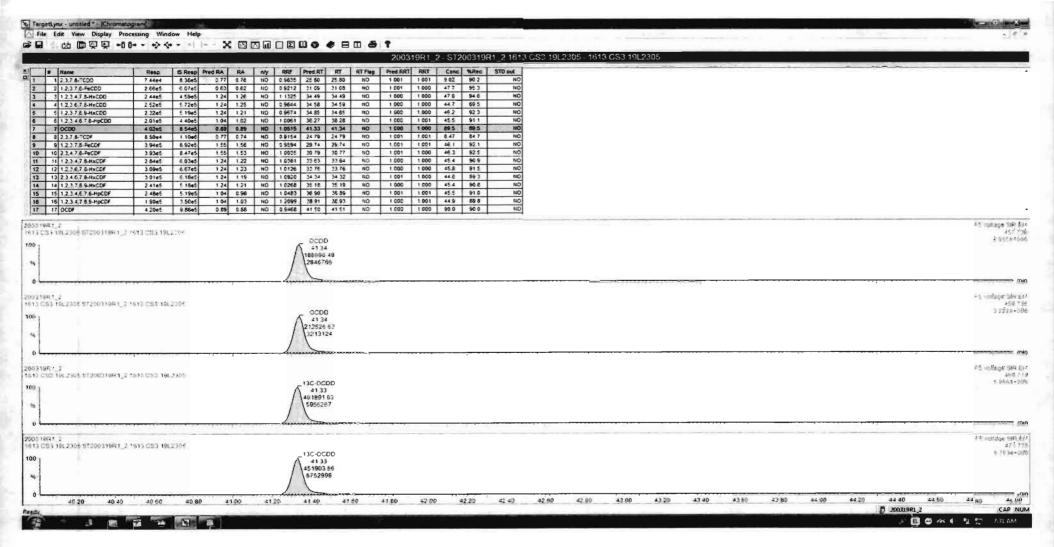
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Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Work Order 1903654



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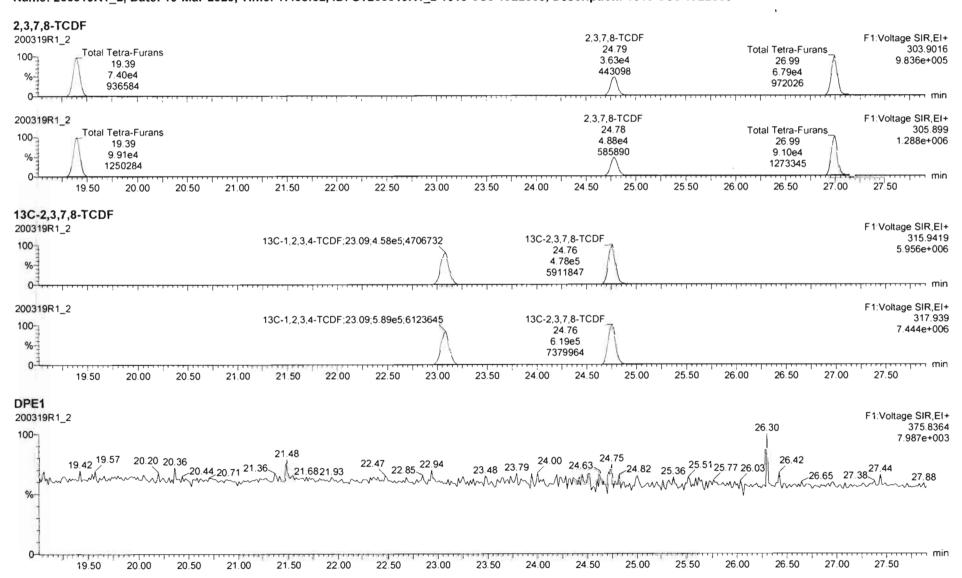
Page 7 of 13

Dataset:

Untitled

Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

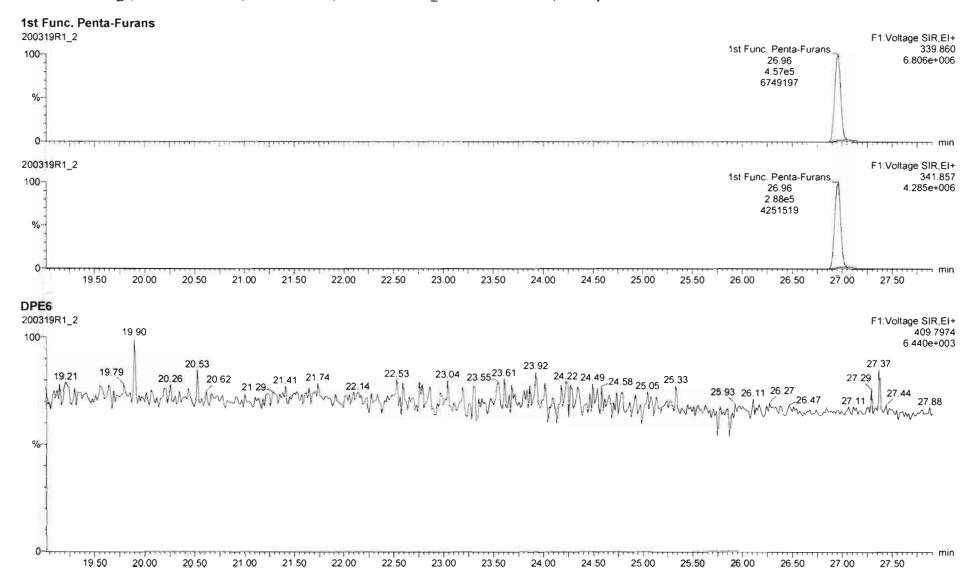
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Untitled

Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

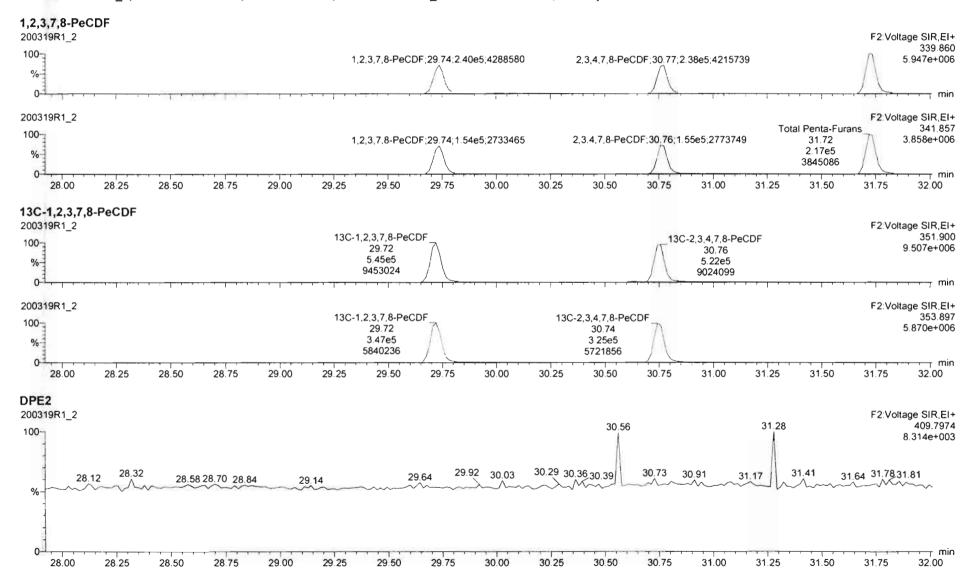
Name: 200319R1_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Untitled

Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

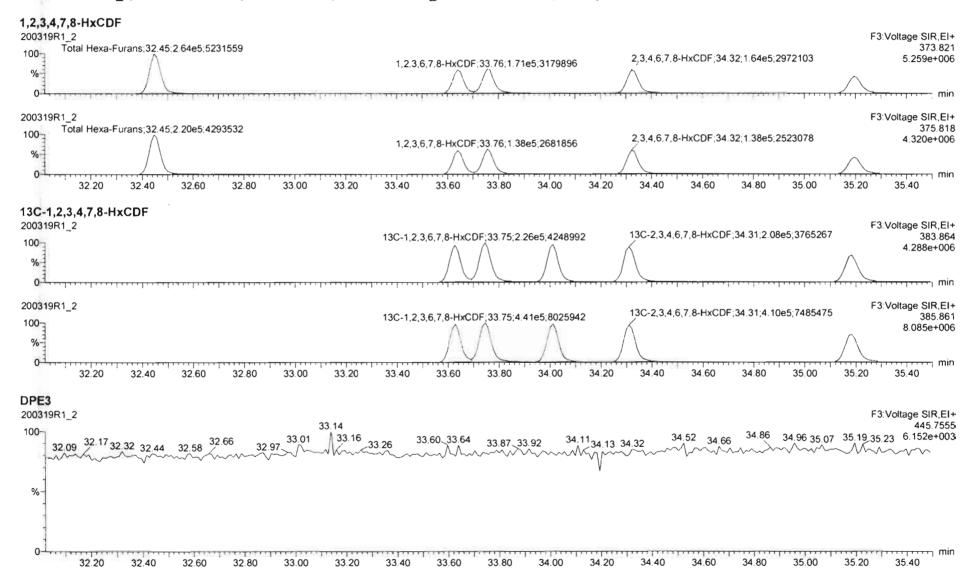
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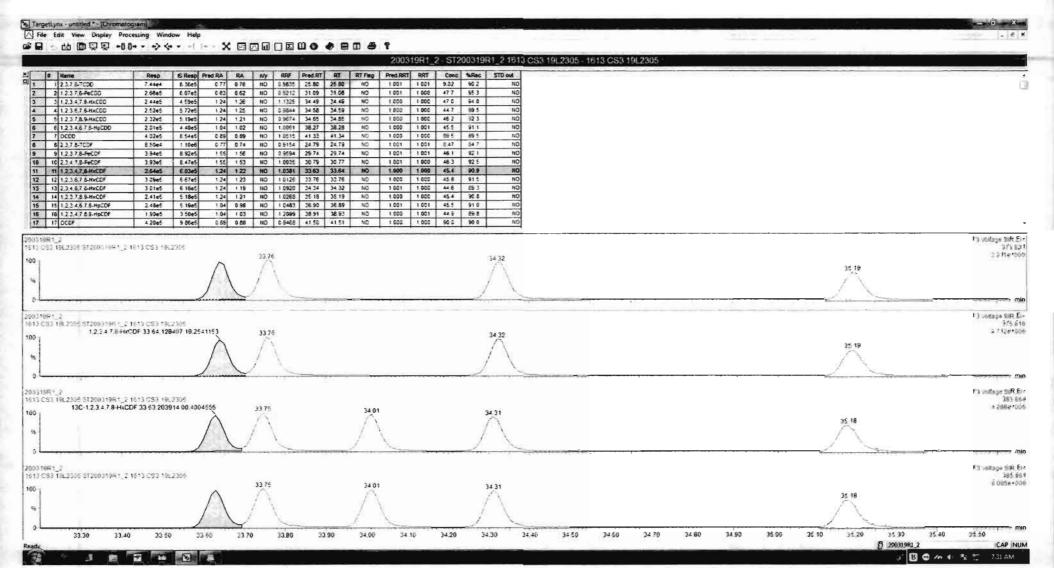


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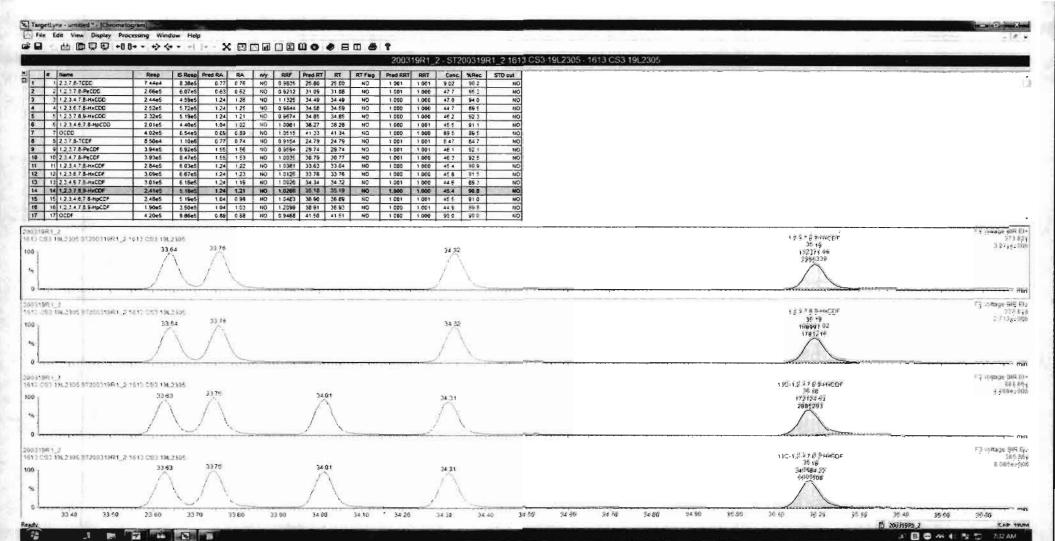
Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1 2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1 2 1613 CS3 19L2305, Description: 1613 CS3 19L2305





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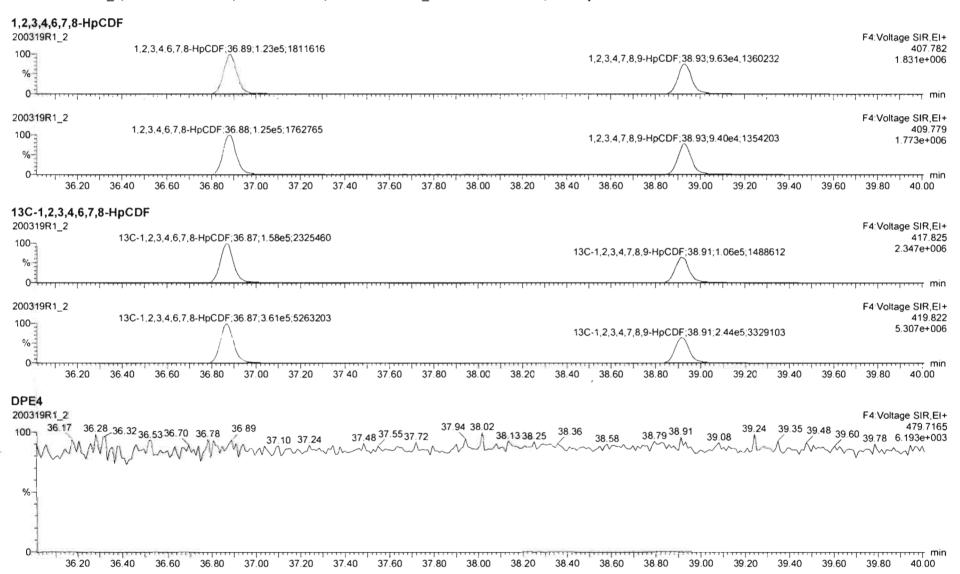


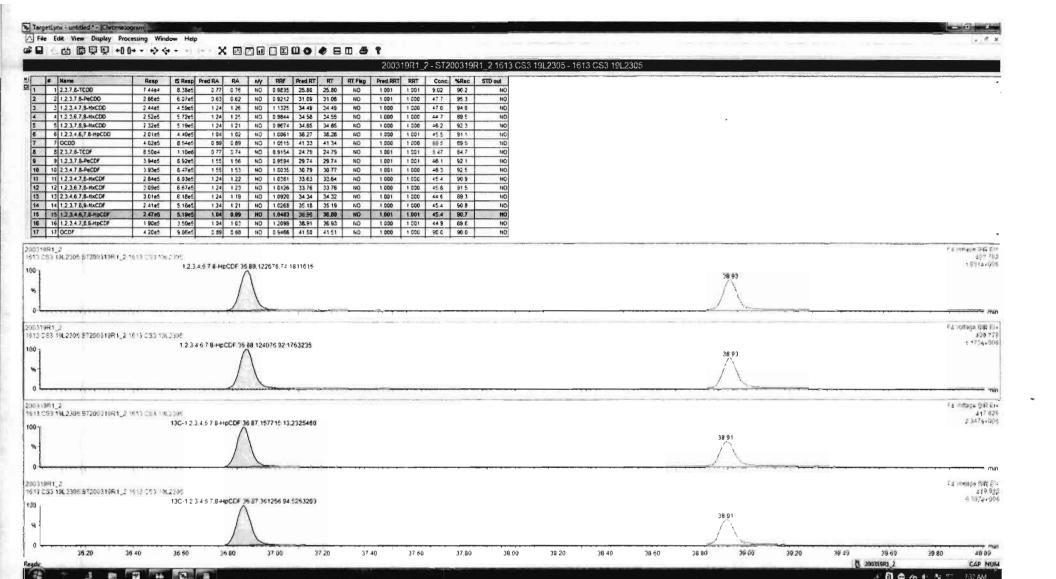
Work Order 1903654 Page 834 of 1184

Untitled

Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1_2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305





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1027.5

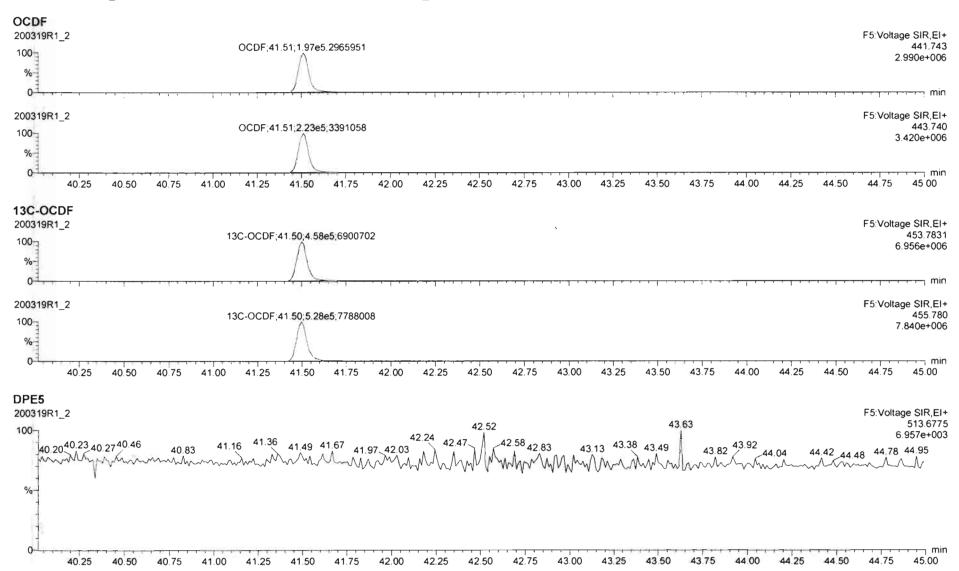
(B)

Untitled

Last Altered: Printed:

Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

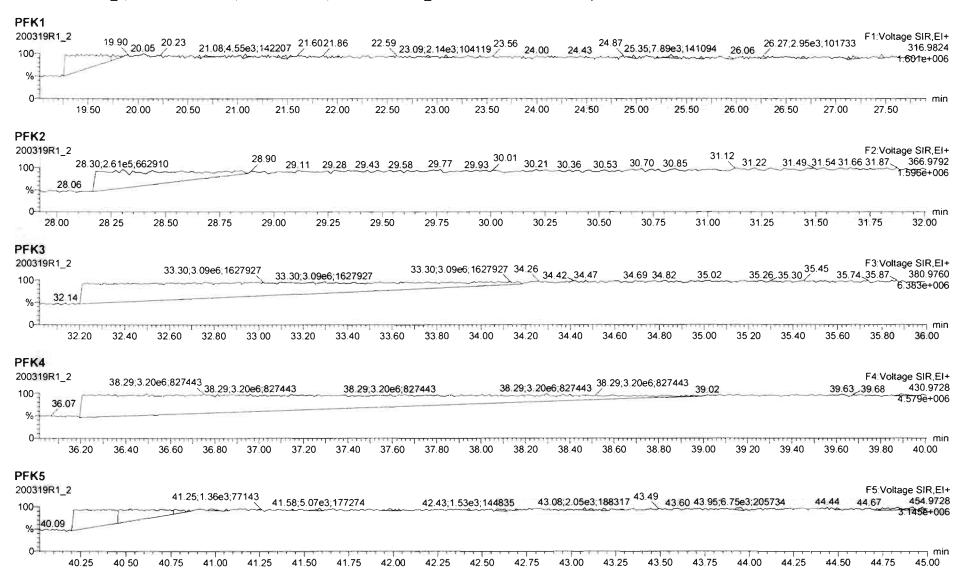
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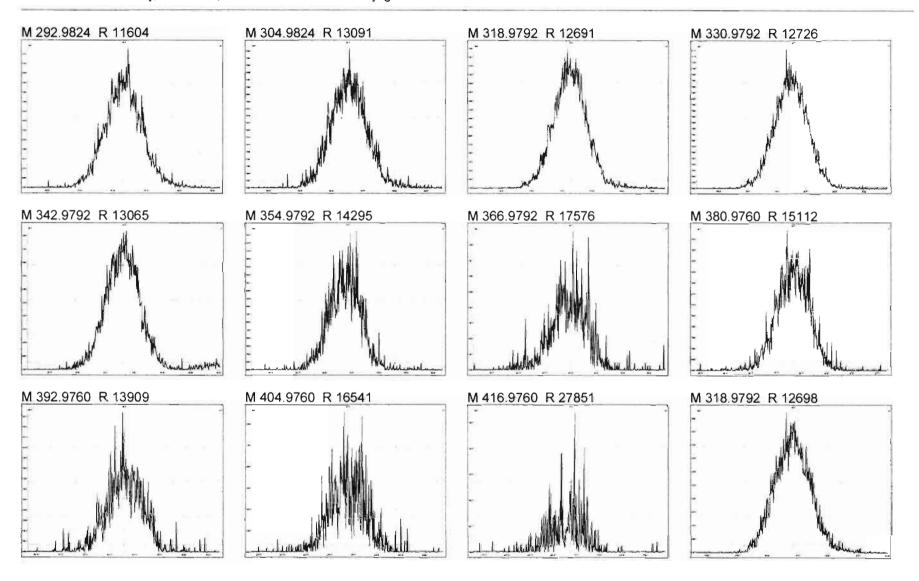
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Last Altered: Printed: Friday, March 20, 2020 07:33:28 Pacific Daylight Time Friday, March 20, 2020 07:34:02 Pacific Daylight Time

Name: 200319R1 2, Date: 19-Mar-2020, Time: 17:08:32, ID: ST200319R1_2 1613 CS3 19L2305, Description: 1613 CS3 19L2305

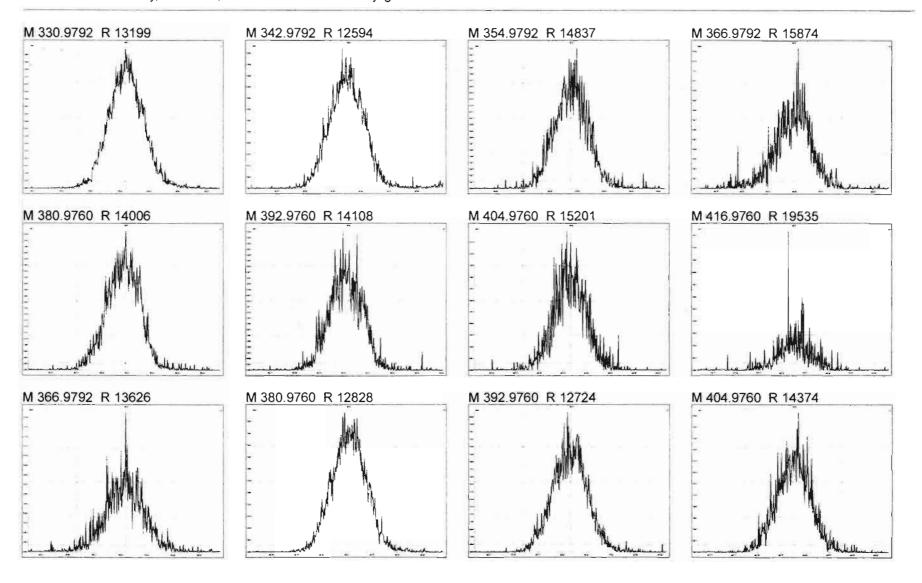


Friday, March 20, 2020 05:11:17 Pacific Daylight Time

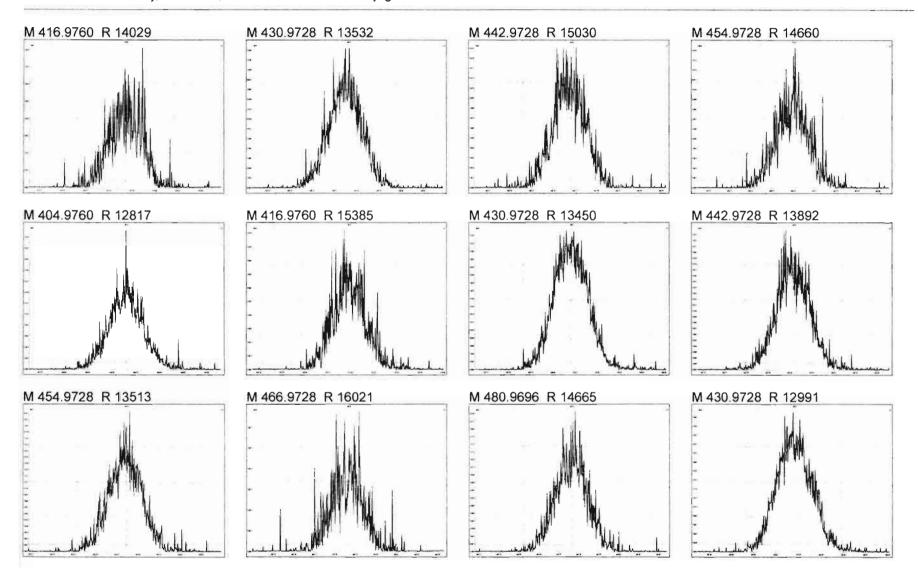


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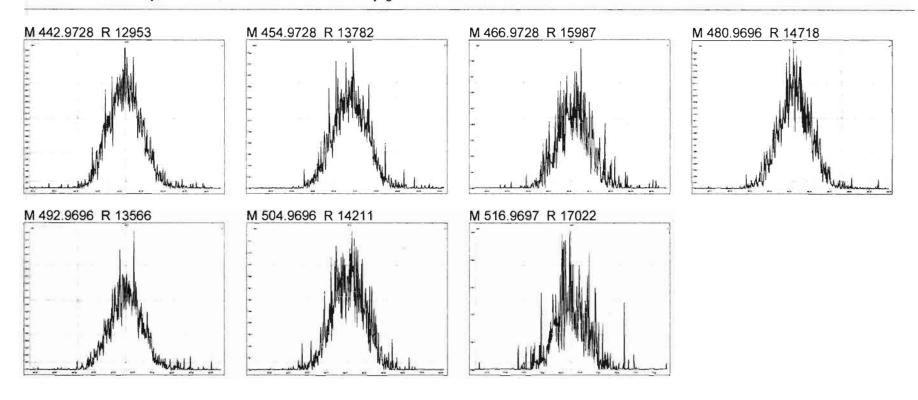
Friday, March 20, 2020 05:11:17 Pacific Daylight Time



Friday, March 20, 2020 05:11:17 Pacific Daylight Time



Friday, March 20, 2020 05:11:17 Pacific Daylight Time



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HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST 2003 24D1-	_		Reviewed By: C7 03/ 25 Trow		
End Calibration ID:	_		Initials & Date		
	Beg.	<u>End</u>		Beg.	End
Ion abundance within QC limits?		NA	Mass resolution ≥		
Concentrations within criteria?		Ф	□ 5k □ 6-8K □ 8K ☑ 10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25%	1	Ф	Intergrated peaks display correctly?	/	NA
First and last eluters present?		ф	GC Break <20%		
Retention Times within criteria?			8280 CS1 End Standard:		
Verification Std. named correctly?			- Ratios within limits, S/N <2.5:1, CS1 within 12 hours		NA
(ST-Year-Month-Day-VG ID)					
Forms signed and dated?		Ф	Comments:		
Correct ICAL referenced?	DB				
Run Log:					
- Correct instrument listed?		V			
- Samples within 12 hour clock? - Bottle position verfied?	(Y)	N			

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Page: 1 of 1

Vista Analytical Laboratory

MassLynx 4.1

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Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_2.qld

Last Altered:

Tuesday, March 24, 2020 11:18:06 Pacific Daylight Time

Printed:

Tuesday, March 24, 2020 11:19:07 Pacific Daylight Time

DB

3/24/20 C703/25/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_2, Date: 24-Mar-2020, Time: 10:54:51, ID: ST200324D1-1 1613 CS3 19L2305, Description: 1613 CS3 19I1604

10000000	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	6.64e3	0.81	NO	0.982	1.000	17.794	17.79	1.000	1.001	8.7672	87.784 - 120	0.175	8.77
2	2 13C-2,3,7,8-TCDF	7.71e4	0.77	NO	1.08	1.000	17.782	17.77	1,133	1.138	100.47	10071-140	0.609	
3	3 13C-1,2,3,4-TCDF	7.09e4	0.80	NO	1.00	1.000	15.660	15.62	1.000	1.000	100.00	100	0.659	

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Wednesday, March 25, 2020 09:26:20 Pacific Daylight Time Wednesday, March 25, 2020 09:26:37 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19 Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Compound name: 2,3,7,8-TCDF

100	Name	ID	Acq.Date	Acq.Time
1	200324D1_1	CP200324D1-1 DB-225 CPSM	24-Mar-20	10:24:42
2	200324D1_2	ST200324D1-1 1613 CS3 19L2305	24-Mar-20	10:54:51
3	200324D1_3	SOLVENT BLANK	24-Mar-20	11:26:29
4	200324D1_4	2000144-12RE1 PDI-082SC-A-05-06-191002	24-Mar-20	11:58:14
5	200324D1_5	2000143-04RE1 PDI-031SC-A-03-04-191017	24-Mar-20	12:29:54
6	200324D1_6	2000143-19RE1 PDI-049SC-A-02-03-191015	24-Mar-20	13:01:37
7	200324D1_7	2000143-19RE1 PDI-049SC-A-02-03-191015	24-Mar-20	13:33:23
8	200324D1_8	1903654-05RE4 PDI-075SC-B-00-02-191013	24-Mar-20	14:05:06
9	200324D1_9	1903654-08RE4 PDI-075SC-B-06-08-191013	24-Mar-20	14:36:46
10	200324D1_10	1903654-11RE4 PDI-076SC-B-05-07-191013	24-Mar-20	15:08:29
11	200324D1_11	1903827-05RE4 PDI-062SC-B-00-02-191023	24-Mar-20	15:40:10
12	200324D1_12	1904161-16RE6 PDI-066SC-A-06-07-191011	24-Mar-20	16:11:48
13	200324D1_13	2000195-05RE1 PDI-074SC-A-06-07-191012	24-Mar-20	16:43:30
14	200324D1_14	2000195-07RE1 PDI-076SC-A-08-09-191013	24-Mar-20	17:15:12
15	200324D1_15	2000195-08RE1 PDI-076SC-A-09-10-191013	24-Mar-20	17:46:53
16	200324D1_16	2000195-09RE1 PDI-100SC-J-04-05-190926 .	24-Mar-20	18:18:36

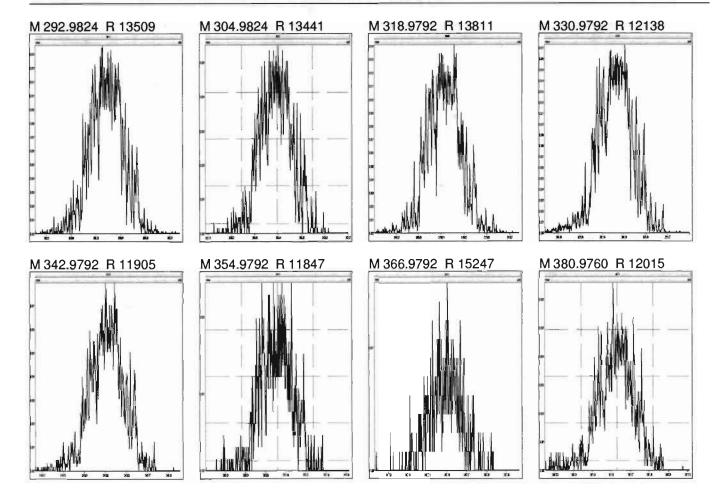
Work Order 1903654 Page 845 of 1184

File:

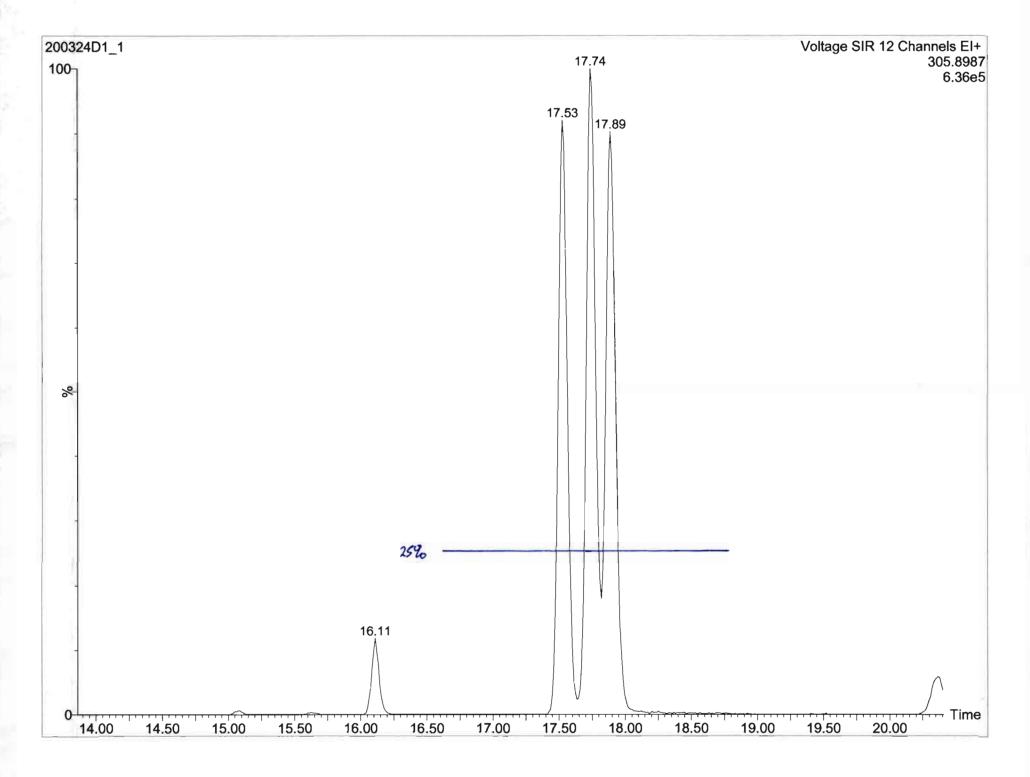
Experiment: tcdf_db225.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

Tuesday, March 24, 2020 10:23:51 Pacific Daylight Time



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Quantify Sample Report MassLynx 4.1

Vista Analytical Laboratory VG-10

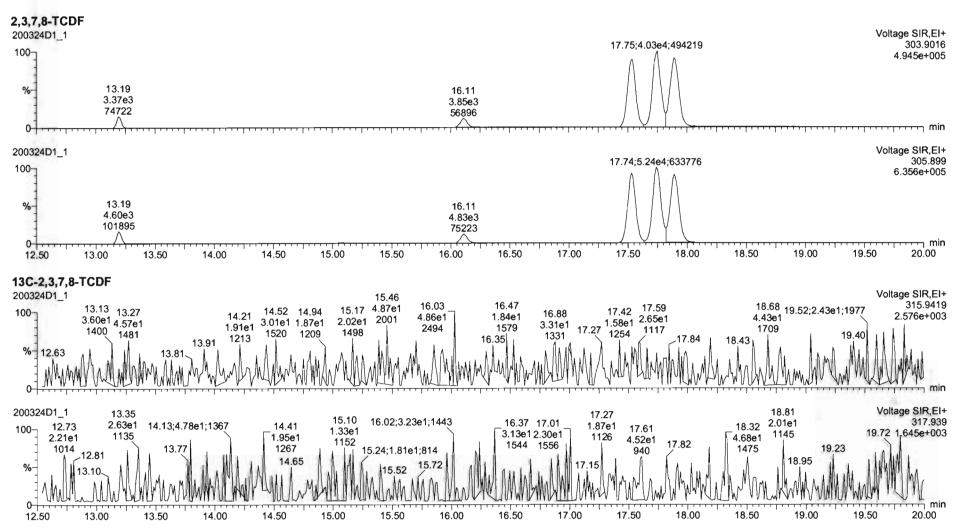
Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_1.qld

Last Altered: Printed: Tuesday, March 24, 2020 10:58:54 Pacific Daylight Time Tuesday, March 24, 2020 11:02:27 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19
Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_1, Date: 24-Mar-2020, Time: 10:24:42, ID: CP200324D1-1 DB-225 CPSM, Description: DB-225 CPSM



Vista Analytical Laboratory VG-10

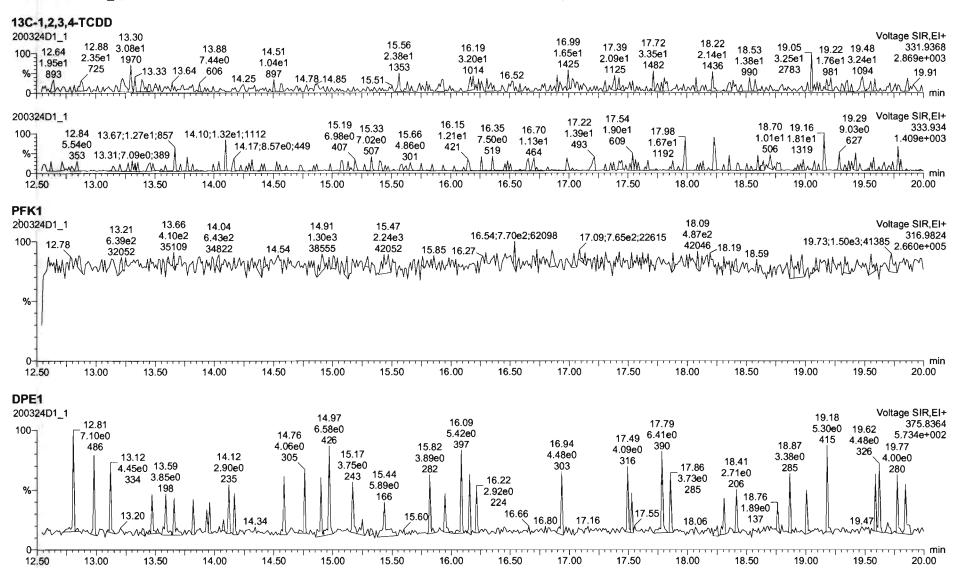
Dataset:

U:\VG7.PRO\Results\200324D1\200324D1_1.qld

Last Altered: Printed:

Tuesday, March 24, 2020 10:58:54 Pacific Daylight Time Tuesday, March 24, 2020 11:02:27 Pacific Daylight Time

Name: 200324D1 1, Date: 24-Mar-2020, Time: 10:24:42, ID: CP200324D1-1 DB-225 CPSM, Description: DB-225 CPSM



Vista Analytical Laboratory VG-10

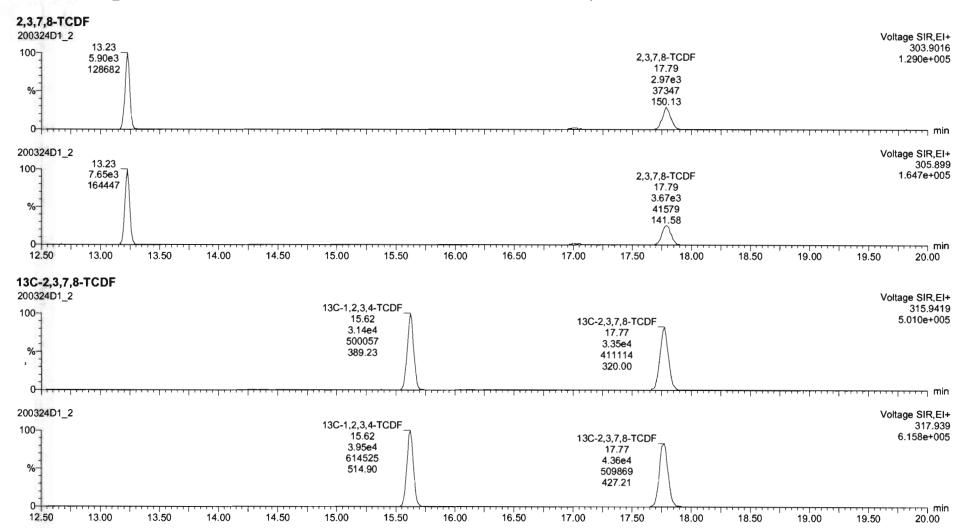
Dataset:

U:\VG7.PRO\Results\200324D1\200324D1 2.qld

Last Altered: Printed: Tuesday, March 24, 2020 11:18:06 Pacific Daylight Time Tuesday, March 24, 2020 11:19:26 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19
Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200324D1_2, Date: 24-Mar-2020, Time: 10:54:51, ID: ST200324D1-1 1613 CS3 19L2305, Description: 1613 CS3 19I1604



Quantify Sample Report MassLynx 4.1

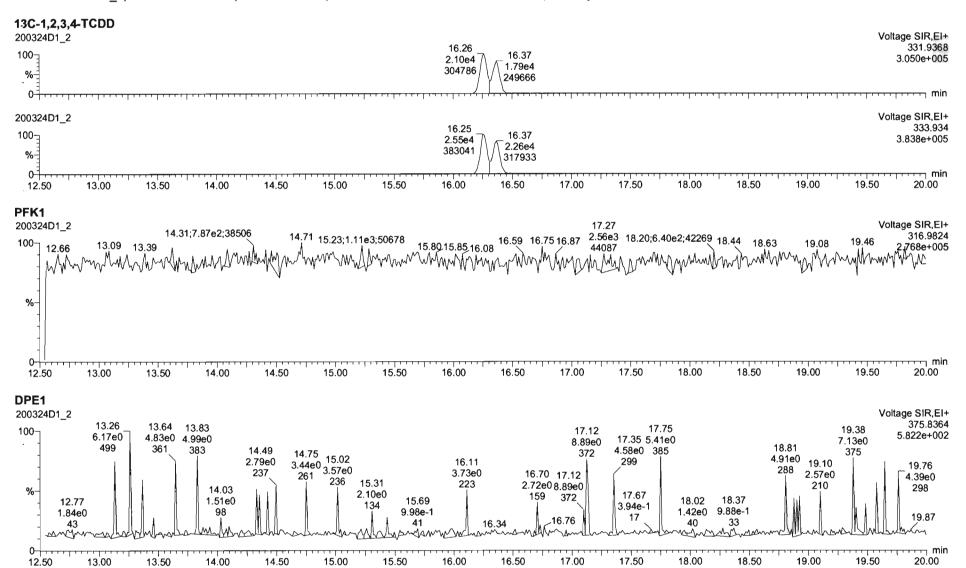
Vista Analytical Laboratory VG-10

Dataset:

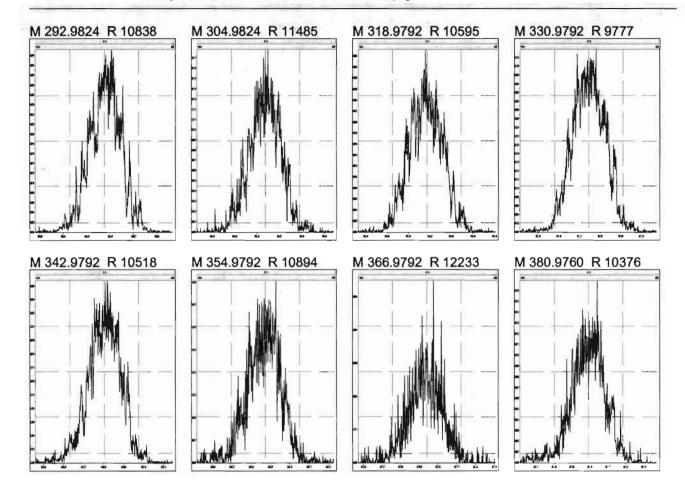
U:\VG7.PRO\Results\200324D1\200324D1_2.qld

Last Altered: Printed: Tuesday, March 24, 2020 11:18:06 Pacific Daylight Time Tuesday, March 24, 2020 11:19:26 Pacific Daylight Time

Name: 200324D1 2, Date: 24-Mar-2020, Time: 10:54:51, ID: ST200324D1-1 1613 CS3 19L2305, Description: 1613 CS3 19l1604



Tuesday, March 24, 2020 18:52:07 Pacific Daylight Time



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INITIAL CALIBRATION

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Quantify Compound Summary Report Vista Analytical Laboratory

MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed:

Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

GRB 02/02/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Compound name: 2,3,7,8-TCDD Response Factor: 0.988069

RRF SD: 0.0483829. Relative SD: 4.89671

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

7-2-	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	0.250	0.83	NO	25 74	1.001	2.87e3	1 21e6	0 239	-43	0.945	bb
2	200131R1_2	0.500	0 77	NO	25.69	1 001	7.22e3	1.37e6	0 532	6.5	1.05	bb
3	200131R1_3	2.00	0.80	NO	25.70	1.001	3.00e4	1.44e6	2 11	5 7	1.04	bb
4	200131R1_4	10.0	0.78	NO	25.70	1.001	1.39e5	1 42e6	9 92	-0 8	0.980	db
5	200131R1_5	40.0	0.77	NO	25.69	1 001	5 51e5	1.45e6	38.3	-4.2	0.946	bb
6	200131R1_6	300	0.78	NO	25.70	1.001	5.05e6	1.75e6	291	-2.9	0.960	bb

Compound name: 1,2,3,7,8-PeCDD

Response Factor: 0.972284

RRF SD: 0.054098, Relative SD: 5.56402

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: RF

a teach	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	0.57	NO	30.67	1.000	1.12e4	9.52e5	1.21	-3.0	0.943	bb
2	200131R1_2	2.50	0.60	NO	30.64	1.001	2.75e4	1.05e6	2.70	7.9	1.05	bb
3	200131R1_3	10.0	0.63	NO	30.64	1.000	1.18e5	1.14e6	10.6	6.4	1.03	bb
4	200131R1_4	50.0	0.63	NO	30.64	1.000	5.09e5	1.09e6	48.2	-3.7	0.936	bb
5	200131R1_5	200	0.63	NO	30.62	1.000	2.30e6	1.23e6	192	-4.2	0.931	bb
6	200131R1_6	1500	0.63	NO	30.64	1.000	2.16e7	1.53e6	1450	-3.4	0.940	bb

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Quantify Compound Summary Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

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Dataset: U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 1,2,3,4,7,8-HxCDD

Response Factor: 1.07079

RRF SD: 0.0439702, Relative SD: 4.10634

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

Jan Ava	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.18	NO	34.01	1.001	9.84e3	7.72e5	1.19	-4.8	1.02	MM
2	200131R1_2	2.50	1.28	NO	33.98	1.001	2 47e4	8.79e5	2.62	4.9	1.12	bd
3	200131R1_3	10.0	1 23	NO	33 98	1.000	1.09e5	9.69e5	10.5	5.2	1.13	bd
4	200131R1_4	50 0	1.22	NO	33.99	1.000	4.82e5	9.08e5	49.6	-0.8	1.06	bd
5	200131R1_5	200	1.27	NO	33.97	1.000	2.18e6	1.04e6	195	-2.7	1.04	bd
6	200131R1_6	1500	1.21	NO	33 99	1.000	2.05e7	1 30e6	1470	-1.8	1.05	bd

Compound name: 1,2,3,6,7,8-HxCDD

Response Factor: 0.921124

RRF SD: 0.0705821, Relative SD: 7.66261

Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.14	NO	34.10	1.000	1.01e4	9.31e5	1.18	-5.8	0.868	MM
2	200131R1_2	2.50	1.28	NO	34.08	1.001	2.68e4	1.05e6	2.78	11.2	1.02	db
3	200131R1_3	10.0	1.21	NO	34.08	1.000	1.13e5	1.13e6	10.8	8.3	0.998	db
4	200131R1_4	50.0	1.22	NO	34.09	1.001	4.87e5	1.11e6	47.7	-4.7	0.878	db
5	200131R1_5	200	1.17	NO	34.07	1.000	2.21e6	1.24e6	193	-3.4	0.890	db
6	200131R1_6	1500	1.22	NO	34.09	1.001	2.03e7	1.56e6	1410	-5.7	0.868	db

Compound name: 1,2,3,7,8,9-HxCDD

Response Factor: 0.9182

RRF SD: 0.0596016, Relative SD: 6.49114

Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)

Curve type: RF

(10) (Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.36	NO	34.38	1.000	9.78e3	9.08e5	1.17	-6.1	0.862	MM
2	200131R1_2	2.50	1.21	NO	34.35	1.000	2.43e4	9.77e5	2.71	8.3	0.995	bb

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Quantify Compound Summary Report MassLynx 4.1 SCN815

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Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 1,2,3,7,8,9-HxCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200131R1_3	10.0	1.18	NO	34.36	1.000	1.03e5	1.04e6	10.8	8.0	0.991	bb
4	200131R1_4	50.0	1.22	NO	34.37	1.001	4.43e5	1.02e6	47.4	-5 3	0.870	bb
5	200131R1_5	200	1.22	NO	34.35	1 001	2.05e6	1.15e6	195	-2 7	0.893	bb
6	200131R1_6	1500	1.22	NO	34.37	1.001	1.94e7	1.44e6	1470	-2.2	0.898	bb

Compound name: 1,2,3,4,6,7,8-HpCDD

Response Factor: 0.923064

RRF SD: 0.0512135, Relative SD: 5.54821

Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)

Curve type: RF

0.5-7	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.04	NO	37 92	1 000	8.20e3	7.05e5	1.26	0.7	0.930	bb
2	200131R1_2	2.50	1.06	NO	37 88	1.000	1.88e4	7.60e5	2.69	7 4	0.991	bb
3	200131R1_3	10.0	1.02	NO	37.90	1 001	7.44e4	7 62e5	10.6	5.8	0 976	bb
4	200131R1_4	50.0	1.01	NO	37.90	1 000	3.45e5	7 83e5	47.7	-4.7	0.880	bb
5	200131R1_5	200	1.00	NO	37.88	1.000	1.57e6	8.87e5	192	-4.0	0.886	bb
6	200131R1_6	1500	1.01	NO	37.91	1.001	1.45e7	1.10e6	1420	-5.2	0.875	bb

Compound name: OCDD Response Factor: 0.974578

RRF SD: 0.0610366, Relative SD: 6.26287

Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)

Curve type: RF

25-50	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	2.50	0.90	NO	40.92	1.000	1.61e4	1.29e6	2.55	2.2	0.996	bd
2	200131R1_2	5.00	0.89	NO	40.90	1.000	3.84e4	1.46e6	5.41	8.2	1.05	bd
3	200131R1_3	20.0	0.88	NO	40.90	1.000	1.46e5	1.41e6	21.2	5.9	1.03	bd
4	200131R1_4	100	0.86	NO	40.90	1.000	6.76 e 5	1.48e6	93.7	-6.3	0.914	MM
5	200131R1_5	400	0.87	NO	40.90	1.000	3.13e6	1.69e6	379	-5.2	0.924	bb
6	200131R1_6	3000	0.83	NO	40.92	1.000	2.97e7	2.14e6	2850	-4.8	0.927	bb

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Quantify Compound Summary Report
Vista Analytical Laboratory

MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed:

Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 2,3,7,8-TCDF Response Factor: 0.801975

RRF SD: 0.0524877, Relative SD: 6.54481

Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	0 250	0.73	NO	24 85	1.001	3.48e3	1.69e6	0.257	2.8	0.824	bb
2	200131R1_2	0.500	0.74	NO	24.82	1.001	8.24e3	1.87 e 6	0.549	9.9	0.881	bb
3	200131R1_3	2 00	0.71	NO	24.82	1 001	3 25e4	1.95e6	2.08	4.0	0.834	bb
4	200131R1_4	10.0	0.73	NO	24.82	1 001	1.47e5	1.92e6	9.50	-5 0	0 762	bb
5	200131R1_5	40 0	0 74	NO	24.81	1 001	5.87e5	1.96e6	37.3	-6.7	0 748	bb
6	200131R1_6	300	0.74	NO	24.82	1 001	5.37e6	2.35e6	285	-4.9	0.763	bb

Compound name: 1,2,3,7,8-PeCDF

Response Factor: 0.907368

RRF SD: 0.0556686, Relative SD: 6.13518

Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)

Curve type: RF

100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.54	NO	29.39	1 000	1.54e4	1.46 e 6	1.16	-7.1	0.843	MM
2	200131R1_2	2.50	1.49	NO	29.35	1.000	4.02e4	1.66e6	2.66	6.5	0.967	bb
3	200131R1_3	10.0	1.55	NO	29.35	1.000	1.82 e 5	1.85e6	10.8	8.5	0.984	bb
4	200131R1_4	50.0	1.54	NO	29.37	1.000	7.66e5	1.72e6	49.2	-1.7	0.892	bb
5	200131R1_5	200	1.53	NO	29.34	1.000	3.44e6	1.96e6	193	-3.5	0.875	bb
6	200131R1_6	1500	1.52	NO	29.37	1.000	3.24e7	2.45e6	1460	-2.7	0.883	bb

Compound name: 2,3,4,7,8-PeCDF

Response Factor: 0.951581

RRF SD: 0.0710528, Relative SD: 7.46682

Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)

Curve type: RF

E U	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.39	NO	30.36	1.000	1.52e4	1.40e6	1.14	-9.0	0.866	bb
2	200131R1_2	2.50	1.49	NO	30.33	1.000	4.18e4	1.60e6	2.74	9.7	1.04	bb

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.gld

Last Altered: Printed:

Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 2,3,4,7,8-PeCDF

002	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200131R1_3	10.0	1.52	NO	30.33	1.000	1.83e5	1.77e6	10.9	8.5	1.03	bb
4	200131R1_4	50.0	1.52	NO	30.33	1.000	7.42e5	1.63e6	48.0	-4.1	0.913	bb
5	200131R1_5	200	1.52	NO	30.32	1.000	3.55e6	1.92e6	195	-2.7	0.926	bb
6	200131R1_6	1500	1.53	NO	30.33	1.000	3.27e7	2.35e6	1460	-2.5	0.928	bb

Compound name: 1,2,3,4,7,8-HxCDF

Response Factor: 0.862294

RRF SD: 0.0432122, Relative SD: 5.0113

Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.16	NO	33 13	1.000	1 04e4	9.82e5	1.22	-2.1	0.844	MM
2	200131R1_2	2.50	1.16	NO	33.10	1.000	2 37e4	1 03e6	2.66	6.4	0.917	bd
3	200131R1_3	10.0	1.18	NO	33.11	1.000	1.05e5	1 14e6	10.6	6.5	0.918	bd
4	200131R1_4	50.0	1.16	NO	33.13	1 000	4 53e 5	1 09e6	48 4	-3.3	0.834	dd
5	200131R1_5	200	1 16	NO	33.10	1 001	2.04e6	1.23e6	192	-4.1	0.827	bd
6	200131R1_6	1500	1.16	NO	33.12	1.000	1.94e7	1.55e6	1450	-3.4	0.833	bd

Compound name: 1,2,3,6,7,8-HxCDF

Response Factor: 0.841382

RRF SD: 0.0466581, Relative SD: 5.54541

Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.21	NO	33.26	1.001	1.06e4	1.07e6	1.17	-6.2	0.789	MM
2	200131R1_2	2.50	1.19	NO	33.23	1.001	2.67e4	1.18e6	2.69	7.5	0.904	MM
3	200131R1_3	10.0	1.15	NO	33.24	1.001	1.15e5	1.29e6	10.6	6.3	0.894	db
4	200131R1_4	50.0	1.16	NO	33.24	1.000	5.01e5	1.23e6	48.3	-3.3	0.813	db
5	200131R1_5	200	1.15	NO	33.22	1.000	2.41e6	1.46e6	196	-1.9	0.825	d b
6	200131R1_6	1500	1.16	NO	33.24	1.000	2.16e7	1.75e6	1470	-2.3	0.822	db

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U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld Dataset:

Last Altered: Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time Printed:

Compound name: 2,3,4,6,7,8-HxCDF

Response Factor: 0.898194

RRF SD: 0.0533025, Relative SD: 5.9344

Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)

Curve type: RF

, All	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.07	NO	33.84	1.000	1.01e4	9.62e5	1.17	-6.1	0.844	bb
2	200131R1_2	2.50	1.21	NO	33.81	1.000	2.55e4	1 06e6	2 67	6.7	0.958	bb
3	200131R1_3	10.0	1,14	NO	33.82	1.001	1 14e 5	1.17e6	10.8	8.3	0.972	bb
4	200131R1_4	50.0	1.16	NO	33.82	1.000	4.82e5	1.11e6	48 4	-3.3	0.869	bb
5	200131R1_5	200	1.17	NO	33.80	1.000	2.21e6	1 27e6	194	-2.8	0.873	bb
6	200131R1_6	1500	1.17	NO	33 82	1.000	2.08e7	1.59 e 6	1460	-2.8	0.873	bb

Compound name: 1,2,3,7,8,9-HxCDF

Response Factor: 0.857779

RRF SD: 0.0530165, Relative SD: 6.18067

Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)

Curve type: RF

1300	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	1.12	NO	34.74	1.000	9.51e3	8.96e5	1.24	-1.0	0.849	bb
2	200131R1_2	2.50	1.18	NO	34.71	1.000	2.15e4	9.11e5	2.76	10.2	0.946	bb
3	200131R1_3	10.0	1.17	NO	34.72	1.001	8.71e4	9.71e5	10.5	4.6	0.897	MM
4	200131R1_4	50.0	1.15	NO	34.72	1.000	3.90e5	9.57e5	47.6	-4.9	0.816	bb
5	200131R1_5	200	1 16	NO	34.70	1.000	1.74e6	1.06e6	191	-46	0.818	bb
6	200131R1_6	1500	1.17	NO	34.72	1.000	1.68e7	1.37e6	1430	-4.4	0.820	bb

Compound name: 1,2,3,4,6,7,8-HpCDF

Response Factor: 0.851072

RRF SD: 0.0458765, Relative SD: 5.39044

Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)

Curve type: RF

1414	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	0.94	NO	36.48	1.000	7.60e3	7.37e5	1.21	-3.0	0.826	bb
2	200131R1_2	2.50	0.99	NO	36.47	1.001	1.79e4	7.82e5	2.70	7.9	0.918	bd

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Dataset:

U;\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed:

Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 1,2,3,4,6,7,8-HpCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200131R1_3	10.0	0.96	NO	36.46	1.000	7.21e4	8.00e5	10.6	5.9	0.901	bd
4	200131R1_4	50.0	0.96	NO	36.47	1.001	3.29e5	8.01e5	48.2	-3.5	0.821	bb
5	200131R1_5	200	0.97	NO	36.45	1.000	1.46e6	8.88e5	193	-3.4	0.822	bb
6	200131R1_6	1500	0.96	NO	36.47	1.000	1.37e7	1.12e6	1440	-3.9	0 818	bb

Compound name: 1,2,3,4,7,8,9-HpCDF

Response Factor: 0.979894

RRF SD: 0.0488516, Relative SD: 4.9854

Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)

Curve type: RF

Bisy)	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	1.25	0.96	NO	38.50	1.000	5.89e3	5.04e5	1 19	-4.7	0.934	MM
2	200131R1_2	2.50	0.97	NO	38 48	1 000	1 47e4	5.63e5	2.66	6.4	1.04	bb
3	200131R1_3	10.0	0.96	NO	38.49	1.000	5.91e4	5.68e5	10.6	6.2	1 04	bb
4	200131R1_4	50.0	0.97	NO	38.50	1.000	2.74e5	5.80e5	48.2	-3.6	0.945	bb
5	200131R1_5	200	0.96	NO	38 48	1.000	1.25e6	6.58e5	194	-2.9	0.952	bb
6	200131R1_6	1500	0.96	NO	38 50	1.000	1.20e7	8.31e5	1480	-1.5	0.966	bb

Compound name: OCDF Response Factor: 0.805548

RRF SD: 0.0471476, Relative SD: 5.85286

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	2.50	0.85	NO	41.10	1.000	1.39e4	1.44e6	2.40	-4.0	0.773	bb
2	200131R1_2	5.00	0.87	NO	41.08	1.000	3.50e4	1.59e6	5.46	9.2	0.880	bb
3	200131R1_3	20.0	0.87	NO	41.09	1.000	1.37e5	1.61e6	21.1	5.5	0.850	MM
4	200131R1_4	100	0.85	NO	41.10	1.000	6.45e5	1.67e6	95.6	-4.4	0.770	bb
5	200131R1_5	400	0.86	NO	41.09	1.000	2.92e6	1.87e6	388	-3.1	0.781	bb
6	200131R1_6	3000	0.86	NO	41.10	1.000	2.81e7	2.40e6	2900	-3.3	0.779	bb

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Dataset: U:\VG12.PR0\Results\200131R1\200131R1-CRV.qld

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Compound name: 13C-2,3,7,8-TCDD

Response Factor: 1.19852

RRF SD: 0.0939444, Relative SD: 7.83835

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

Wely	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.79	NO	25.72	1.026	1.21e6	9.30e5	109	9.0	1.31	bb
2	200131R1_2	100	0.79	NO	25.67	1.026	1.37e6	1.27e6	90.2	-9.8	1.08	bb
3	200131R1_3	100	0.79	NO	25.67	1.026	1.44e6	1.31e6	91.3	-8.7	1.09	bb
4	200131R1_4	100	0.79	NO	25.67	1.026	1 42e6	1.19e6	99.9	-0.1	1.20	bb
5	200131R1_5	100	0.80	NO	25.66	1 026	1 45e6	1.18e6	103	2.7	1 23	bb
6	200131R1_6	100	0.78	NO	25.69	1 026	1 75e6	1.37e6	107	6.9	1.28	bb

Compound name: 13C-1,2,3,7,8-PeCDD

Response Factor: 0.966657

RRF SD: 0.113301, Relative SD: 11.7209

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.64	NO	30.65	1.222	9.52e5	9.30e5	106	5.9	1.02	bb
2	200131R1_2	100	0.63	NO	30.61	1.223	1.05e6	1.27e6	85.4	-14.6	0.826	bb
3	200131R1_3	100	0.64	NO	30.62	1.223	1.14e6	1.31e6	90.0	-10.0	0.870	bb
4	200131R1_4	100	0.65	NO	30.62	1.223	1.09e6	1.19e6	95.0	-5.0	0.918	bb
5	200131R1_5	100	0.64	NO	30.61	1.223	1.23e6	1.18e6	108	7.9	1.04	bb
6	200131R1_6	100	0.64	NO	30.62	1.223	1.53e6	1.37e6	116	15.8	1.12	bb

Compound name: 13C-1,2,3,4,7,8-HxCDD

Response Factor: 0.873915

RRF SD: 0.0797425, Relative SD: 9.12474

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	1.26	NO	33.99	1.014	7.72e5	8.41e5	105	5.1	0.918	bd
2	200131R1_2	100	1.27	NO	33.96	1.014	8.79e5	1.13e6	89.1	-10.9	0.778	bd

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed: Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 13C-1,2,3,4,7,8-HxCDD

17000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200131R1_3	100	1.28	NO	33.97	1.014	9.69e5	1.23e6	90.5	-9.5	0.791	bd
4	200131R1_4	100	1.26	NO	33.98	1.014	9.08e5	1 05e6	98.8	-12	0.863	bd
5	200131R1_5	100	1.27	NO	33.96	1.014	1 04e6	1.15e6	104	38	0.907	bd
6	200131R1_6	100	1.28	NO	33.98	1.014	1.30e6	1.32e6	113	12.8	0.986	bd

Compound name: 13C-1,2,3,6,7,8-HxCDD

Response Factor: 1.04579

RRF SD: 0.10317, Relative SD: 9.86527

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

E MAN	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	1 24	NO	34.09	1.017	9 31e5	8.41e5	106	5.9	1.11	db
2	200131R1_2	100	1.25	NO	34.06	1.017	1 05e6	1.13e6	88.6	-11.4	0 927	db
3	200131R1_3	100	1.25	NO	34.07	1.017	1.13e6	1 23 e 6	88.2	-11.8	0.923	db
4	200131R1_4	100	1 25	NO	34.07	1.017	1 11e6	1.05 e 6	101	0.9	1.05	db
5	200131R1_5	100	1.26	NO	34.06	1.017	1.24e6	1.15e6	103	3 3	1.08	db
6	200131R1_6	100	1.27	NO	34.07	1.017	1.56e6	1.32 e 6	113	13.1	1.18	db

Compound name: 13C-1,2,3,7,8,9-HxCDD

Response Factor: 0.974375

RRF SD: 0.10254, Relative SD: 10.5236

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

THE STATE OF	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	1.26	NO	34.37	1.025	9.08e5	8.41e5	111	10.8	1.08	bb
2	200131R1_2	100	1.24	NO	34.34	1.025	9.77e5	1.13e6	88.8	-11.2	0.865	bb
3	200131R1_3	100	1.23	NO	34.35	1.025	1.04e6	1.23e6	87.1	-12.9	0.848	bb
4	200131R1_4	100	1.26	NO	34.35	1.025	1.02e6	1.05e6	99.4	-0.6	0.968	bb
5	200131R1_5	100	1.22	NO	34.33	1.025	1.15e6	1.15e6	102	2.1	0.995	bb
6	200131R1_6	100	1.27	NO	34.35	1.025	1.44e6	1.32e6	112	11.8	1.09	bb

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered:

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Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 13C-1,2,3,4,6,7,8-HpCDD

Response Factor: 0.747228

RRF SD: 0.0868418, Relative SD: 11.6219

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

199	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	1.04	NO	37.91	1.131	7 05e5	8.41e5	112	12.3	0.839	bb
2	200131R1_2	100	1 03	NO	37.88	1 131	7.60e5	1.13e6	90.0	-100	0 673	bb
3	200131R1_3	100	1.05	NO	37.88	1,131	7 62e5	1.23e6	83.2	-16.8	0.622	bb
4	200131R1_4	100	1.05	NO	37.88	1.131	7.83e5	1.05e6	99.7	-0.3	0.745	bb
5	200131R1_5	100	1 05	NO	37.88	1.131	8.87e5	1.15 e 6	103	3.2	0.771	bb
6	200131R1_6	100	1 03	NO	37.88	1.131	1.10e6	1.32e6	112	11.6	0 834	bb

Compound name: 13C-OCDD Response Factor: 0.706533

RRF SD: 0.0850665, Relative SD: 12.04

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	200	0.89	NO	40.90	1.220	1.29e6	8.41e5	218	8 9	0.770	bb
2	200131R1_2	200	0.92	NO	40.88	1.221	1 46e6	1.13e6	183	-8.6	0.646	bđ
3	200131R1_3	200	0.90	NO	40.89	1.221	1.41e6	1.23e6	163	-18.5	0.575	bb
4	200131R1_4	200	0.90	NO	40.90	1.221	1.48e6	1.05e6	199	-0.4	0.704	bb
5	200131R1_5	200	0.86	NO	40.89	1.221	1.69e6	1.15e6	208	4.0	0.735	bb
6	200131R1_6	200	0.84	NO	40.90	1.221	2.14e6	1.32e6	229	14.6	0.809	bb

Compound name: 13C-2,3,7,8-TCDF

Response Factor: 1.06529

RRF SD: 0.0915828, Relative SD: 8.59701

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.77	NO	24.84	0.990	1.69e6	1.42e6	112	11.8	1.19	bb
2	200131R1_2	100	0.78	NO	24.79	0.990	1.87e6	1.95e6	89.9	-10.1	0.958	bb

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Dataset: U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

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Compound name: 13C-2,3,7,8-TCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200131R1_3	100	0.76	NO	24.79	0.990	1.95e6	2.03e6	90.3	-9.7	0.962	bb
4	200131R1_4	100	0.77	NO	24.79	0.990	1.92e6	1.80e6	100	0.3	1.07	bb
5	200131R1_5	100	0.77	NO	24.78	0.990	1.96e6	1.80e6	103	2.6	1.09	bb
6	200131R1_6	100	0.77	NO	24.81	0.990	2.35e6	2.10e6	105	5.1	1.12	bb

Compound name: 13C-1,2,3,7,8-PeCDF

Response Factor: 1.00172

RRF SD: 0.117905, Relative SD: 11.7703

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

187 L 18	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	1.57	NO	29.37	1.171	1.46e6	1.42e6	103	3.0	1.03	bb
2	200131R1_2	100	1.56	NO	29.34	1.172	1 66e6	1 95e6	84.9	-15.1	0.851	bb
3	200131R1_3	100	1.61	NO	29.34	1.172	1.85e6	2.03e6	91.2	-8.8	0 914	bb
4	200131R1_4	100	1.59	NO	29.35	1.173	1.72e6	1 80e6	95 2	-4.8	0.953	bb
5	200131R1_5	100	1.60	NO	29.32	1.172	1 96e6	1 80e6	109	9.1	1.09	bb
6	200131R1_6	100	1.59	NO	29.35	1.172	2.45e6	2.10e6	117	16.5	1.17	bb

Compound name: 13C-2,3,4,7,8-PeCDF

Response Factor: 0.961692

RRF SD: 0.117094, Relative SD: 12.1758

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

E3/3/3	Name	Std. Conc	RA	n/y	RT	RRT	Resp	1S Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	1.59	NO	30.35	1.210	1.40e6	1.42e6	103	2.7	0.988	db
2	200131R1_2	100	1.59	NO	30.32	1.211	1.60e6	1.95e6	85.2	-14.8	0.820	₫b
3	200131R1_3	100	1.56	NO	30.32	1.211	1.77e6	2.03e6	90.8	-9.2	0.873	bb
4	200131R1_4	100	1.61	NO	30.32	1.211	1.63e6	1.80e6	93.8	-6.2	0.902	db
5	200131R1_5	100	1.59	NO	30.30	1.211	1.92e6	1.80e6	111	10.9	1.07	db
6	200131R1_6	100	1.62	NO	30.33	1.211	2.35e6	2.10e6	117	16.5	1.12	₫b

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Dataset: U:\VG12.

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed:

Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 13C-1,2,3,4,7,8-HxCDF

Response Factor: 1.0492

RRF SD: 0.111678, Relative SD: 10.6441

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

- 1	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.51	NO	33.13	0 988	9.82e5	8.41e5	111	11.3	1.17	bd
2	200131R1_2	100	0.50	NO	33.09	0.988	1 03e6	1.13e6	87.3	-12.7	0.915	bd
3	200131R1_3	100	0.51	NO	33.10	0 988	1 14e6	1 23e6	88.88	-11.2	0.932	bd
4	200131R1_4	100	0 50	NO	33.11	0 988	1 09e6	1 05e6	98.5	-1.5	1.03	bd
5	200131R1_5	100	0.51	NO	33.08	0.988	1.23e6	1 15e6	102	2.0	1.07	bd
6	200131R1_6	100	0.50	NO	33.11	0.989	1 55e6	1 32e6	112	12.1	1.18	bd

Compound name: 13C-1,2,3,6,7,8-HxCDF

Response Factor: 1.18988

RRF SD: 0.120357, Relative SD: 10.1151

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

245 V	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.51	NO	33.24	0.992	1.07e6	8.41e5	107	7.4	1.28	db
2	200131R1_2	100	0.50	NO	33.21	0.992	1.18e6	1.13e6	88.0	-12.0	1.05	db
3	200131R1_3	100	0.51	NO	33.22	0.992	1.29e6	1.23e6	88.2	-11.8	1.05	db
4	200131R1_4	100	0.51	NO	33.23	0.992	1.23e6	1.05e6	98.5	-1.5	1.17	db
5	200131R1_5	100	0.51	NO	33.21	0.992	1.46e6	1.15e6	107	6.7	1.27	db
6	200131R1_6	100	0.51	NO	33.23	0.992	1.75e6	1.32e6	111	11.2	1.32	db

Compound name: 13C-2,3,4,6,7,8-HxCDF

Response Factor: 1.06623

RRF SD: 0.103589, Relative SD: 9.71549

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.51	NO	33.83	1.009	9.62e5	8.41e5	107	7.2	1.14	bb
2	200131R1_2	100	0.50	NO	33.80	1.009	1.06e6	1.13e6	88.4	-11.6	0.943	bb

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed:

Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 13C-2,3,4,6,7,8-HxCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200131R1_3	100	0.51	NO	33.79	1.009	1.17e6	1.23e6	89.3	-10.7	0.953	bb
4	200131R1_4	100	0.51	NO	33.81	1.009	1.11e6	1 05e6	99.0	-1.0	1.06	bb
5	200131R1_5	100	0.51	NO	33.78	1.009	1.27e6	1 15e6	103	3.4	1.10	bb
6	200131R1_6	100	0 50	NO	33.81	1.009	1 59e6	1.32e6	113	12.6	1.20	bb

Compound name: 13C-1,2,3,7,8,9-HxCDF

Response Factor: 0.922357

RRF SD: 0.112781, Relative SD: 12.2275

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.52	NO	34.73	1.036	8.96e5	8.41e5	115	15.5	1.07	bd
2	200131R1_2	100	0.50	NO	34.70	1 036	9.11e5	1.13e6	87 5	-12.5	0 807	bb
3	200131R1_3	100	0.50	NO	34 70	1.036	9.71e5	1.23e6	85.9	-14.1	0 793	bb
4	200131R1_4	100	0 51	NO	34.71	1 036	9.57e5	1.05e6	98.7	-1.3	0 910	bb
5	200131R1_5	100	0.50	NO	34.69	1.036	1.06e6	1.15e6	100	0.1	0.923	bb
6	200131R1_6	100	0.52	NO	34.71	1.036	1.37e6	1.32e6	112	12.3	1.04	bb

Compound name: 13C-1,2,3,4,6,7,8-HpCDF

Response Factor: 0.767165

RRF SD: 0.0861255, Relative SD: 11.2265

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.44	NO	36.47	1.088	7.37e5	8.41e5	114	14.2	0.876	bb
2	200131R1_2	100	0.43	NO	36.44	1.088	7.82e5	1.13e6	90.2	-9.8	0.692	bb
3	200131R1_3	100	0.42	NO	36.45	1.088	8.00e5	1.23e6	85.1	-14.9	0.653	bb
4	200131R1_4	100	0.43	NO	36.45	1.088	8.01e5	1.05e6	99.3	-0.7	0.762	bb
5	200131R1_5	100	0.44	NO	36.44	1.088	8.88e5	1.15e6	101	0.6	0.772	bb
6	200131R1_6	100	0.44	NO	36.46	1.088	1.12e6	1.32e6	111	10.6	0.848	bb

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed:

Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 13C-1,2,3,4,7,8,9-HpCDF

Response Factor: 0.552323

RRF SD: 0.0621028, Relative SD: 11.2439

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

Chica	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.44	NO	38.50	1.149	5.04e5	8.41e5	109	8.5	0.600	MM
2	200131R1_2	100	0.43	NO	38.47	1.149	5.63e5	1.13e6	90.3	-9 7	0.499	bb
3	200131R1_3	100	0.44	NO	38.48	1.149	5.68e5	1.23e6	83.9	-16.1	0.464	bb
4	200131R1_4	100	0.43	NO	38.48	1.148	5.80e5	1.05e6	99.8	-0.2	0.551	bb
5	200131R1_5	100	0 43	NO	38 47	1.149	6.58e5	1.15e6	104	3.6	0.572	bb
6	200131R1_6	100	0.43	NO	38.49	1.149	8.31e5	1.32e6	114	13.9	0.629	bb

Compound name: 13C-OCDF Response Factor: 0.78941

RRF SD: 0.0937006, Relative SD: 11.8697

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	200	0.88	NO	41.10	1.226	1.44e6	8.41e5	217	8.5	0.856	bb
2	200131R1_2	200	0.86	NO	41.07	1.226	1.59e6	1.13e6	178	-10.8	0.704	bb
3	200131R1_3	200	0.84	NO	41.08	1.226	1.61e6	1.23e6	167	-16.6	0.658	bb
4	200131R1_4	200	0.87	NO	41.08	1.226	1.67e6	1.05e6	202	8.0	0.796	bb
5	200131R1_5	200	0.86	NO	41.07	1,227	1.87e6	1.15e6	206	2.8	0.812	bb
6	200131R1_6	200	0.87	NO	41.09	1.227	2.40e6	1.32e6	230	15.2	0.910	bb

Compound name: 37CI-2,3,7,8-TCDD

Response Factor: 1.17626

RRF SD: 0.0677436, Relative SD: 5.75926

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	0.250			25.74	1.026	2.61e3	9.30e5	0.239	-4.6	1.12	bb
2	200131R1_2	0.500			25.70	1.027	7.49e3	1.27e6	0.502	0.3	1.18	bb

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Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Printed: Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 37CI-2,3,7,8-TCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200131R1_3	2.00			25.70	1.027	2.85e4	1.31e6	1.85	-7.7	1.09	bb
4	200131R1_4	10.0			25.70	1.027	1.40e5	1.19e6	10.0	0.4	1.18	bb
5	200131R1_5	40.0			25.69	1.027	5.71e5	1.18e6	41.0	2.6	1.21	bb
6	200131R1_6	200			25.70	1.026	3.51e6	1.37e6	218	8.9	1.28	bb

Compound name: 13C-1,2,3,4-TCDD

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

53.1	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.78	NO	25.08	1.000	9.30e5	9.30e5	100	0.0	1.00	bb
2	200131R1_2	100	0.80	NO	25.03	1.000	1 27e6	1.27e6	100	0.0	1 00	bb
3	200131R1_3	100	0.80	NO	25.03	1.000	1 31e6	1 31e6	100	0.0	1.00	bb
4	200131R1_4	100	0.80	NO	25.03	1.000	1 19e6	1.19e6	100	0.0	1 00	bb
5	200131R1_5	100	0.80	NO	25.02	1.000	1.18e6	1.18e6	100	0.0	1.00	bb
6	200131R1_6	100	0.80	NO	25.05	1.000	1.37e6	1.37e6	100	0.0	1.00	bb

Compound name: 13C-1,2,3,4-TCDF

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

(5.00)	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.79	NO	23.42	1.000	1.42e6	1.42e6	100	0.0	1.00	bd
2	200131R1_2	100	0.79	NO	23.35	1.000	1.95e6	1.95e6	100	0.0	1.00	bb
3	200131R1_3	100	0.79	NO	23.37	1.000	2.03e6	2.03e6	100	0.0	1.00	bb
4	200131R1_4	100	0.79	NO	23.37	1.000	1.80e6	1.80e6	100	0.0	1.00	bb
5	200131R1_5	100	0.80	NO	23.35	1.000	1.80e6	1.80e6	100	0.0	1.00	bb
6	200131R1_6	100	0.79	NO	23.39	1.000	2.10e6	2.10e6	100	0.0	1.00	bb

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Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200131R1\200131R1-CRV.qld

Last Altered: Sunday, February 02, 2020 11:05:29 AM Pacific Standard Time Sunday, February 02, 2020 11:14:39 AM Pacific Standard Time

Compound name: 13C-1,2,3,4,6,9-HxCDF

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200131R1_1	100	0.51	NO	33.52	1.000	8 41 e 5	8.41e5	100	0.0	1.00	bb
2	200131R1_2	100	0 51	NO	33.49	1 000	1.13e6	1.13 e 6	100	0.0	1.00	bb
3	200131R1_3	100	0.51	NO	33.50	1.000	1.23e6	1.23 e6	100	0.0	1.00	bb
4	200131R1_4	100	0 51	NO	33 51	1.000	1.05e6	1 05e6	100	0 0	1.00	bb
5	200131R1_5	100	0 51	NO	33.49	1.000	1.15e6	1.15 e 6	100	0.0	1.00	bb
6	200131R1_6	100	0.51	NO	33.50	1.000	1.32 e 6	1.32e6	100	0.0	1.00	bb

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Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

Sunday, February 02, 2020 11:18:48 AM Pacific Standard Time Sunday, February 02, 2020 11:18:51 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Compound name: 2,3,7,8-TCDD

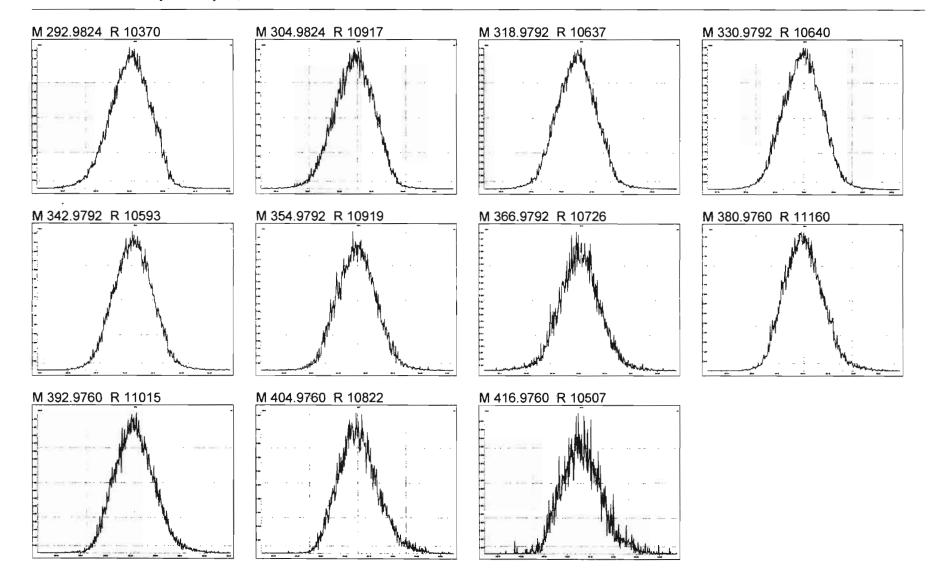
100	Name	ID	Acq.Date	Acq.Time
1	200131R1_1	ST200131R1_1 1613 CS0 19L2302	31-Jan-20	16:48:41
2	200131R1_2	ST200131R1_2 1613 CS1 19L2303	31-Jan-20	17:37:04
3	200131R1_3	ST200131R1_3 1613 CS2 19L2304	31-Jan-20	18:23:19
4	200131R1_4	ST200131R1_4 1613 CS3 19L2305	31-Jan-20	19:10:18
5	200131R1_5	ST200131R1_5 1613 CS4 19L2306	31-Jan-20	19:57:17
6	200131R1_6	ST200131R1_6 1613 CS5 19L2307	31-Jan-20	20:44:23
7	200131R1_7	SOLVENT BLANK	31-Jan-20	21:31:31
8	200131R1_8	SS200131R1_1 1613 SSS 19L2308	31-Jan-20	22:18:30
9	200131R1_9	ST200131R1_7 1613 CS3 19I1604	31-Jan-20	23:05:36
10	200131R1_10	B0A0133-BS1 OPR 1	31-Jan-20	23:52:35
11	200131R1_11	B0A0226-BS1 OPR 10	01-Feb-20	00:39:35
12	200131R1_12	SOLVENT BLANK	01-Feb-20	01:26:32
13	200131R1_13	B0A0133-BLK1 Method Blank 1	01-Feb-20	02:13:32
14	200131R1_14	B0A0226-BLK1 Method Blank 10	01-Feb-20	03:00:32
15	200131R1_15	1904161-10RE1 PDI-046SC-A-02-03-191001	01-Feb-20	03:47:38
16	200131R1_16	1904161-16RE1 PDI-066SC-A-06-07-191011	01-Feb-20	04:34:37
17	200131R1_17	1904207-04RE1 PDI-076SC-A-05-06-191013	01-Feb-20	05:21:38
18	200131R1_18	1903647-05@2X PDI-067SC-B-06-08-191010 .	01-Feb-20	06:08:35
19	200131R1_19	1903647-02@10X PDI-067SC-B-00-02-19101	01-Feb-20	06:55:34

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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Friday, January 31, 2020 16:41:39 Pacific Standard Time

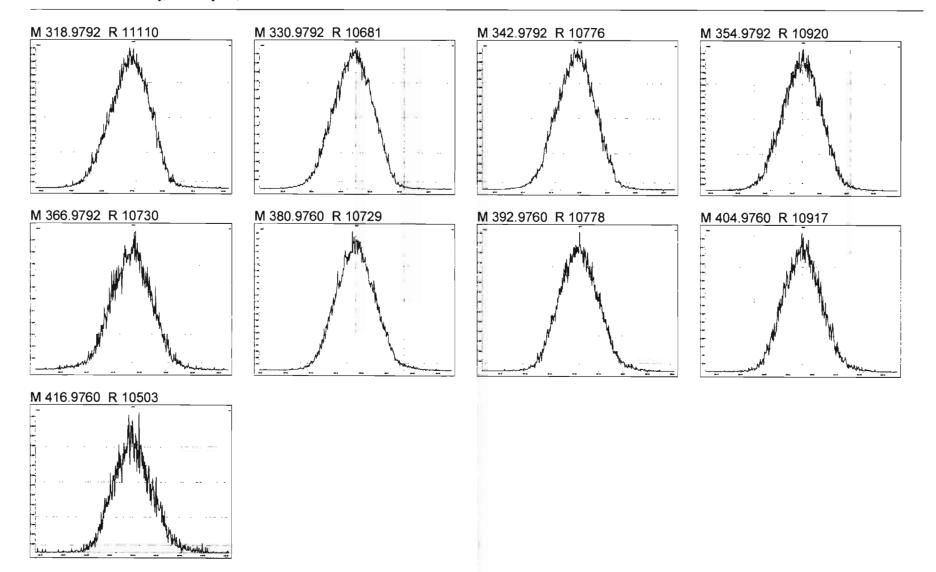


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed:

Friday, January 31, 2020 16:42:23 Pacific Standard Time

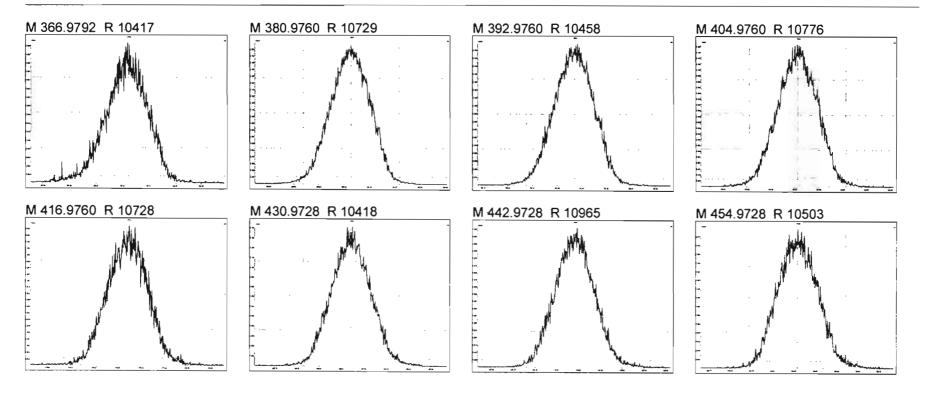


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed:

Friday, January 31, 2020 16:43:30 Pacific Standard Time

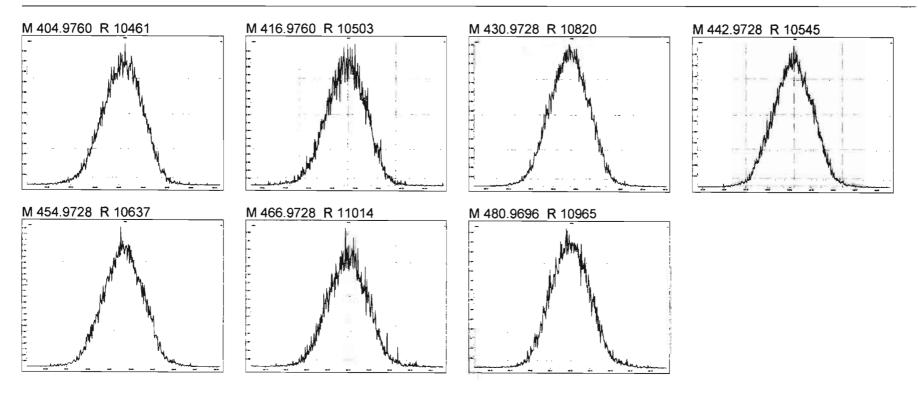


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed:

Friday, January 31, 2020 16:44:27 Pacific Standard Time

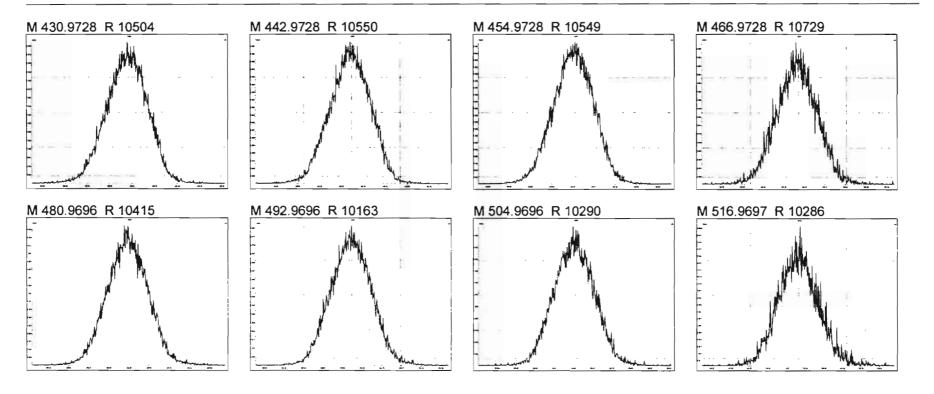


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Friday, January 31, 2020 16:45:52 Pacific Standard Time



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Dataset:

Untitled

Last Altered: Printed: Sunday, February 02, 2020 11:18:10 AM Pacific Standard Time Sunday, February 02, 2020 11:18:19 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 23 Jan 2020 15:01:26

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200131R1_4, Date: 31-Jan-2020, Time: 19:10:18, ID: ST200131R1_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

- 13	# Name	RT
1	1 1,3.6,8-TCDD (First)	21.72
2	2 1,2,8,9-TCDD (Last)	26.66
3	3 1,2,4,7,9-PeCDD (First)	28.44
4	4 1,2,3,8,9-PeCDD (Last)	31.02
5	5 1,2,4.6,7,9-HxCDD (First)	32.51
6	6 1,2,3,7,8,9-HxCDD (Last)	34.37
7	7 1.2.3,4.6.7,9-HpCDD (First)	36.85
8	8 1,2,3,4,6,7,8-HpCDD (Last)	37.90
9	9 1,3.6,8-TCDF (First)	19.63
10	10 1,2,8,9-TCDF (Last)	26.81
11	11 1,3,4.6,8-PeCDF (First)	26.77
12	12 1,2,3,8,9-PeCDF (Last)	31.26
13	13 1.2,3,4,6,8-HxCDF (First)	31.95
14	14 1,2,3,7,8,9-HxCDF (Last)	34.72
15	15 1,2,3,4.6,7,8-HpCDF (First)	36.47
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.50

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MassLynx 4.1 SCN815

Page 1 of 1

Vista Analytical Laboratory VG-11

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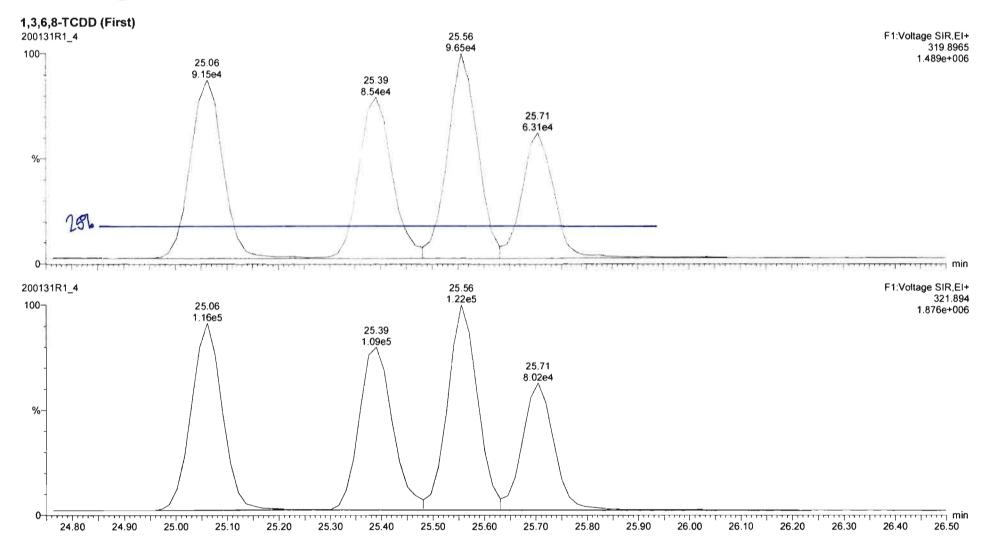
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Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200131R1_4, Date: 31-Jan-2020, Time: 19:10:18, ID: ST200131R1_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Work Order 1903654

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Vista Analytical Laboratory

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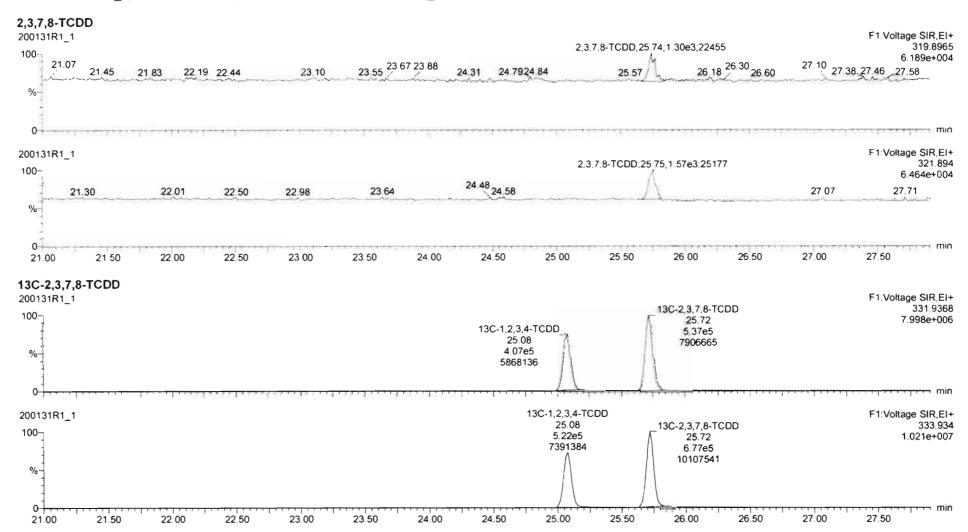
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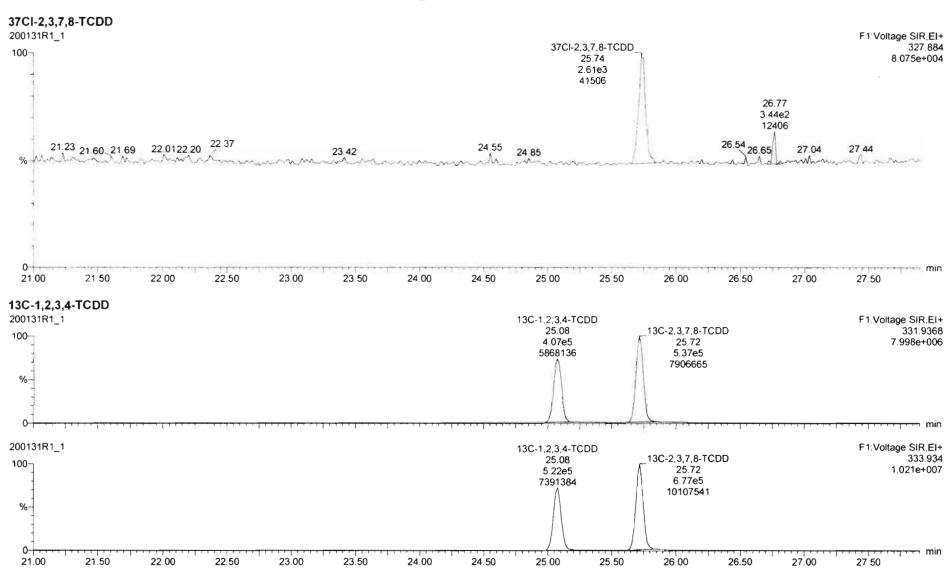
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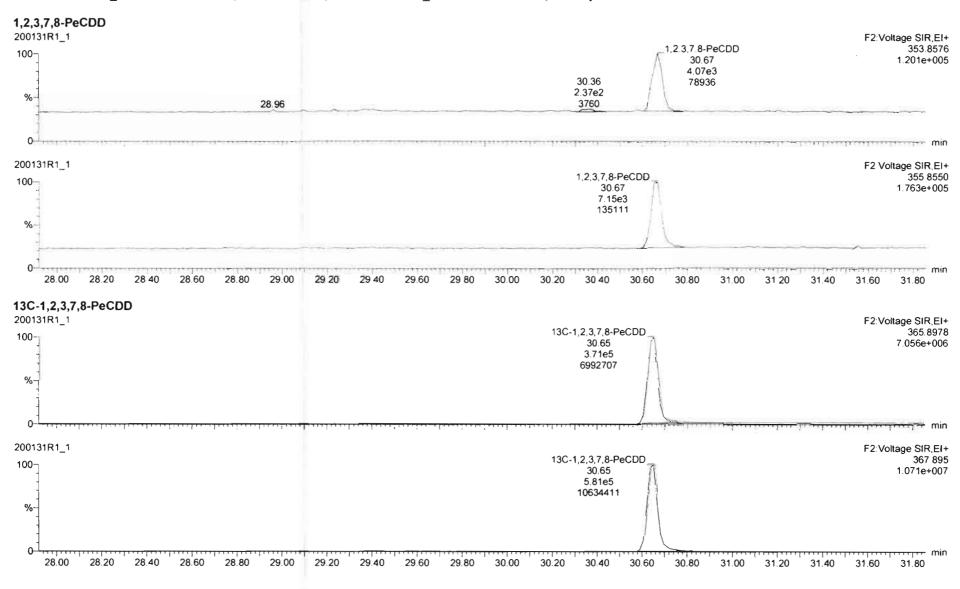
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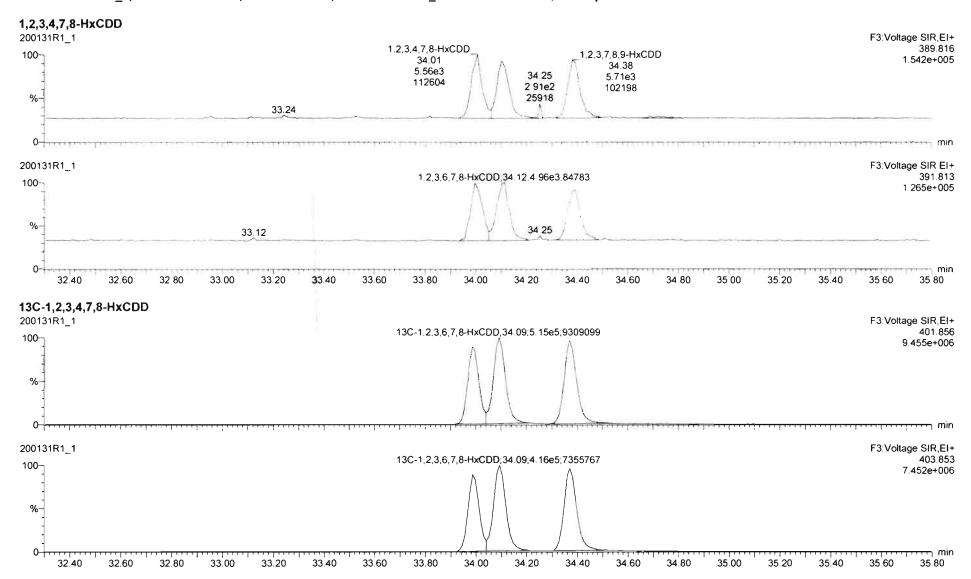
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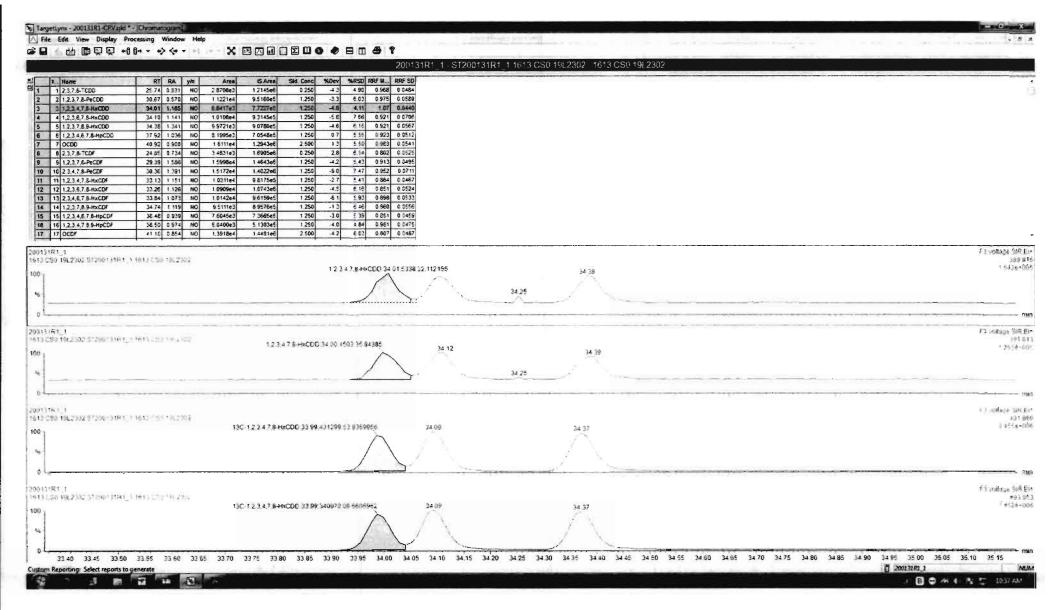
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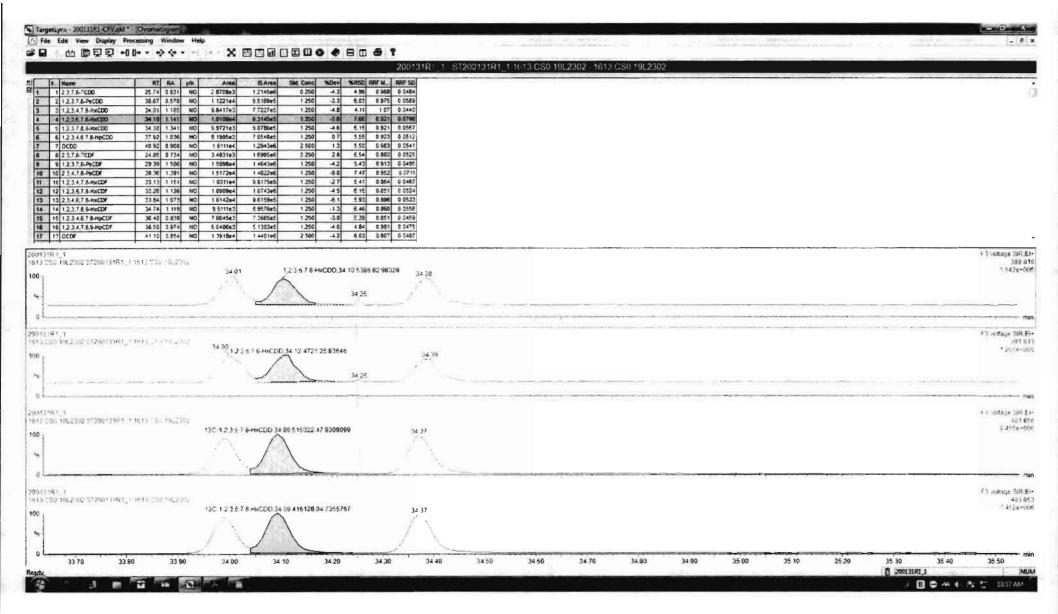
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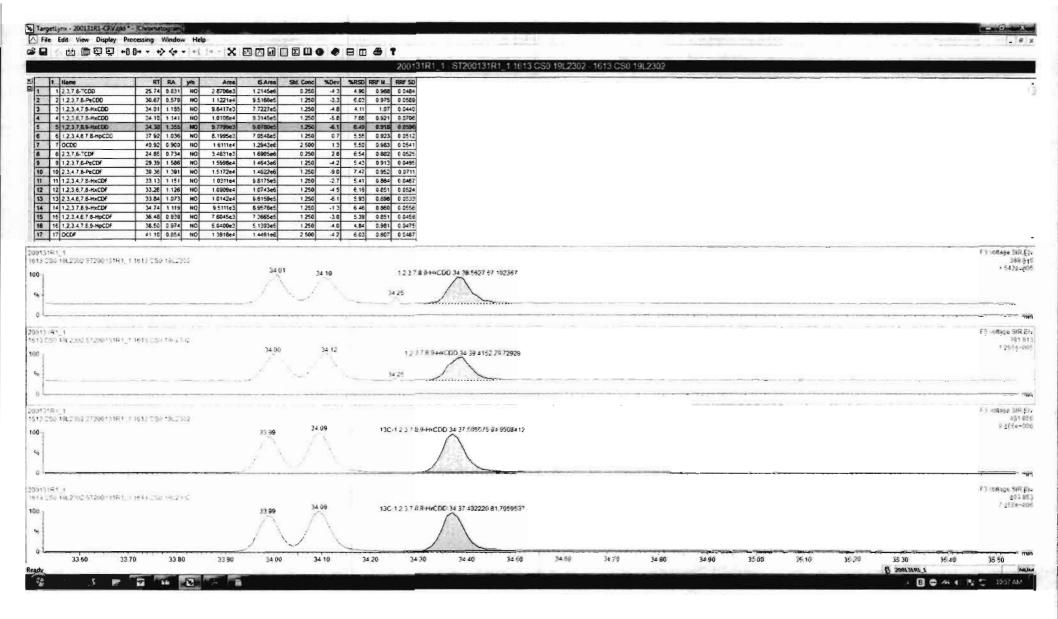




Work Order 1903654 Page 882 of 1184



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Work Order 1903654 Page 884 of 1184

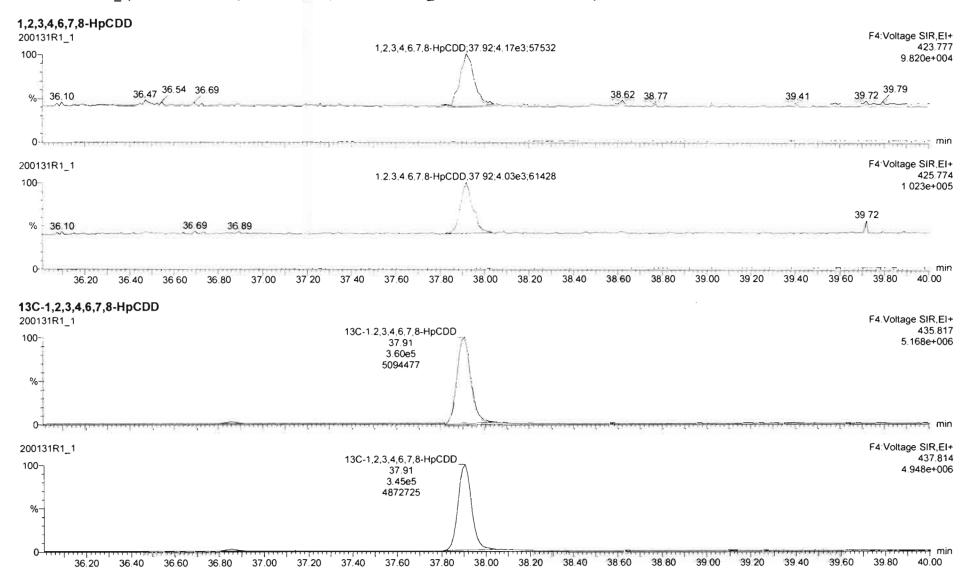
Page 5 of 78

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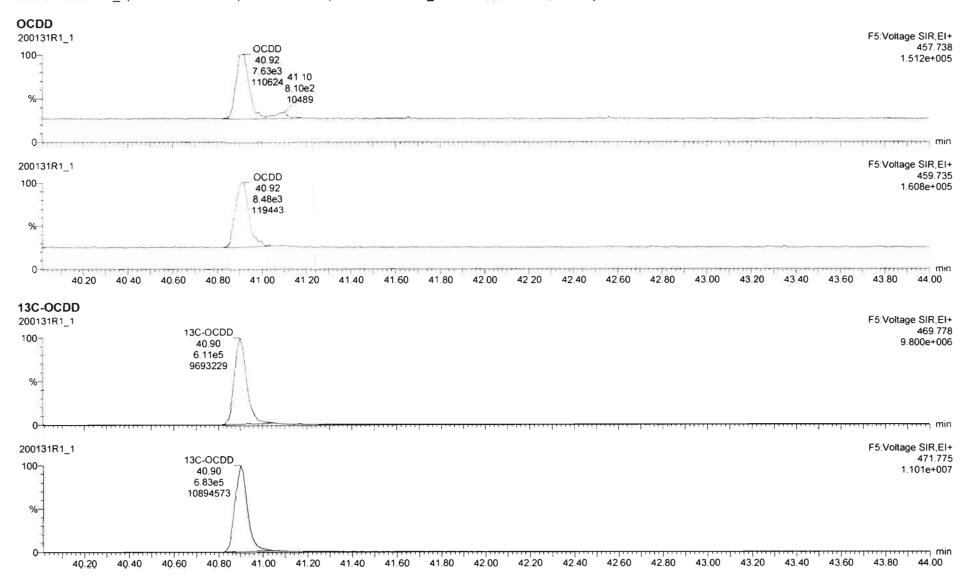
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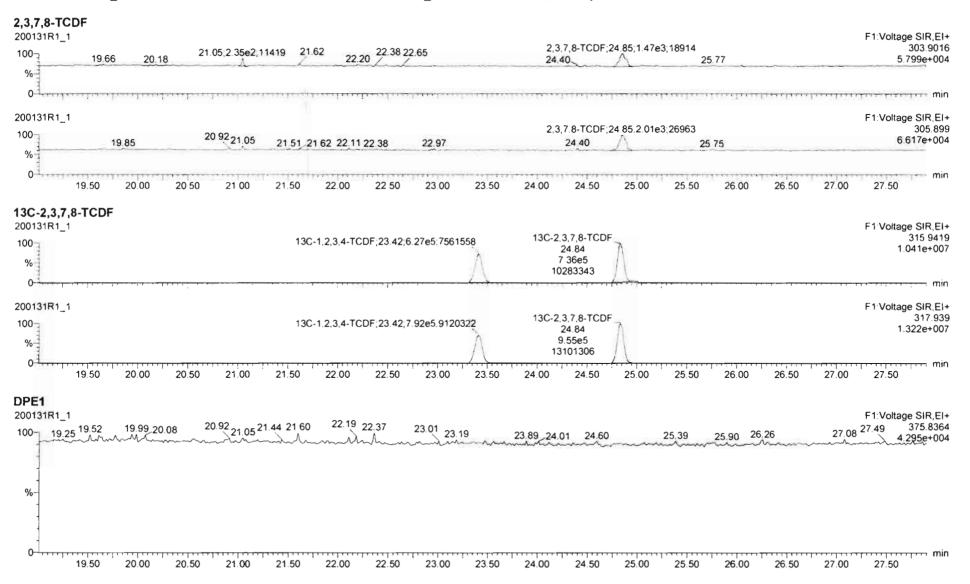
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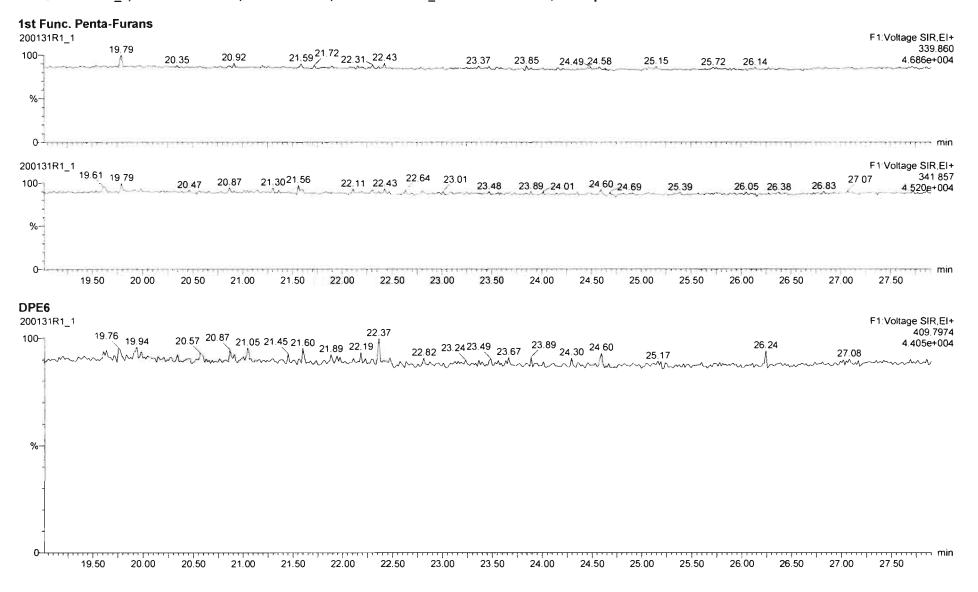
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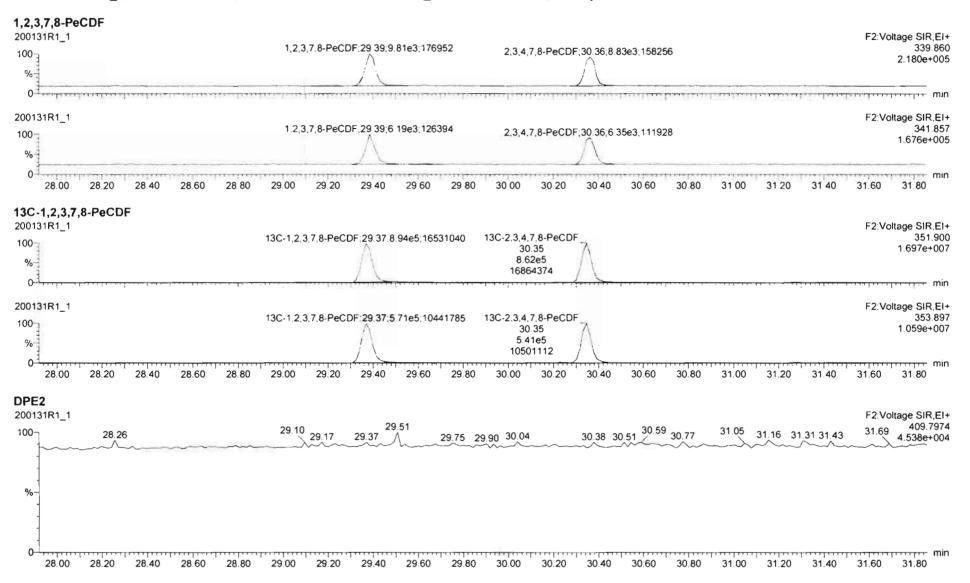
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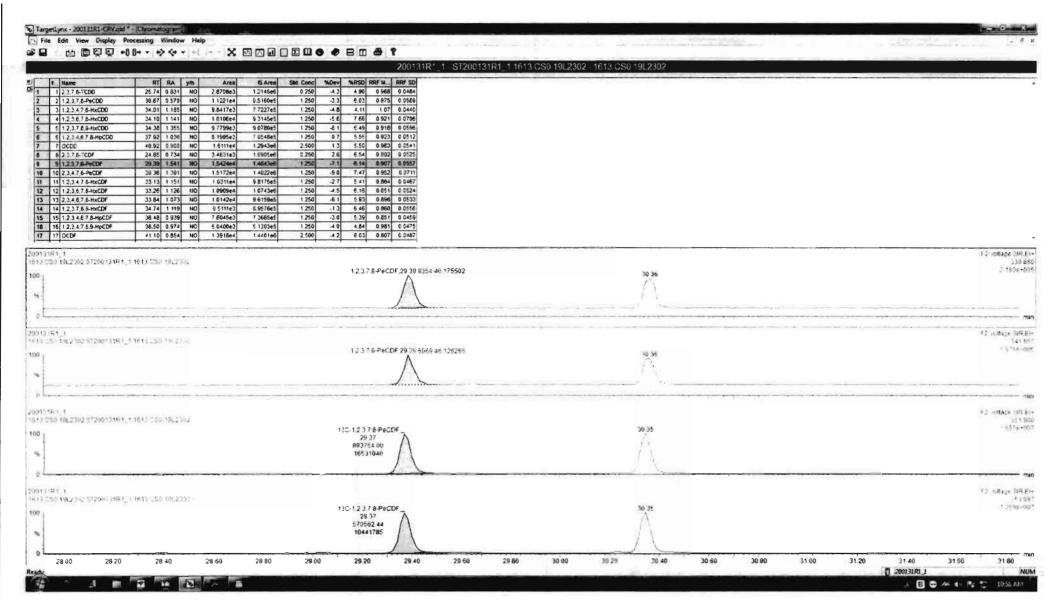
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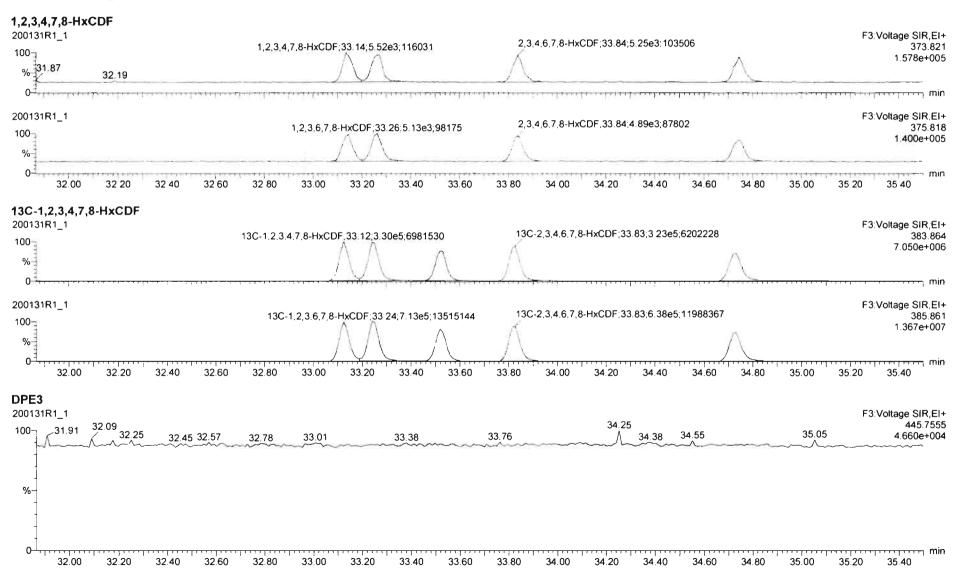


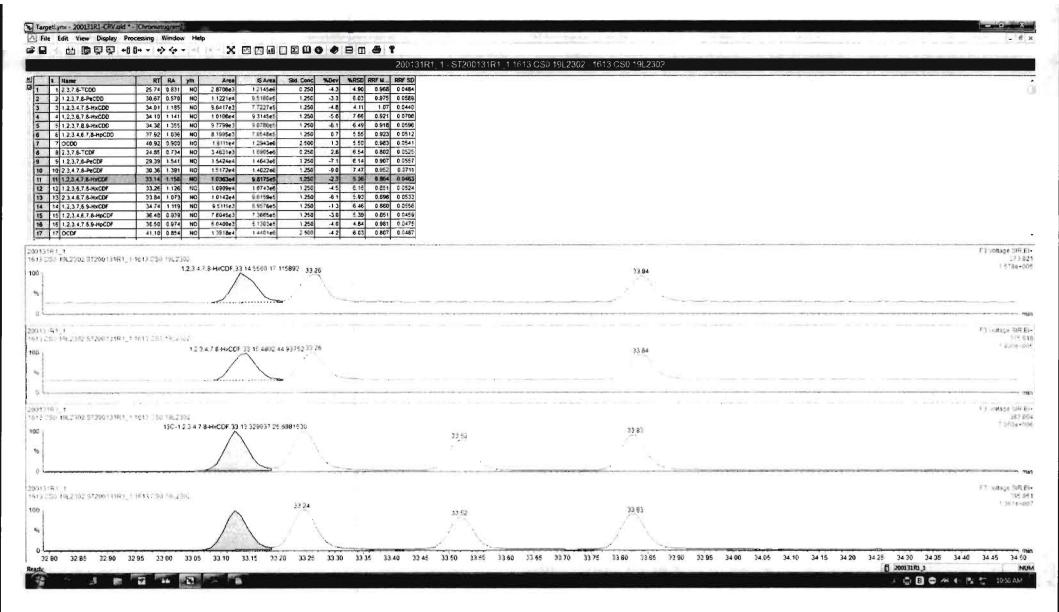
Work Order 1903654 Page 890 of 1184

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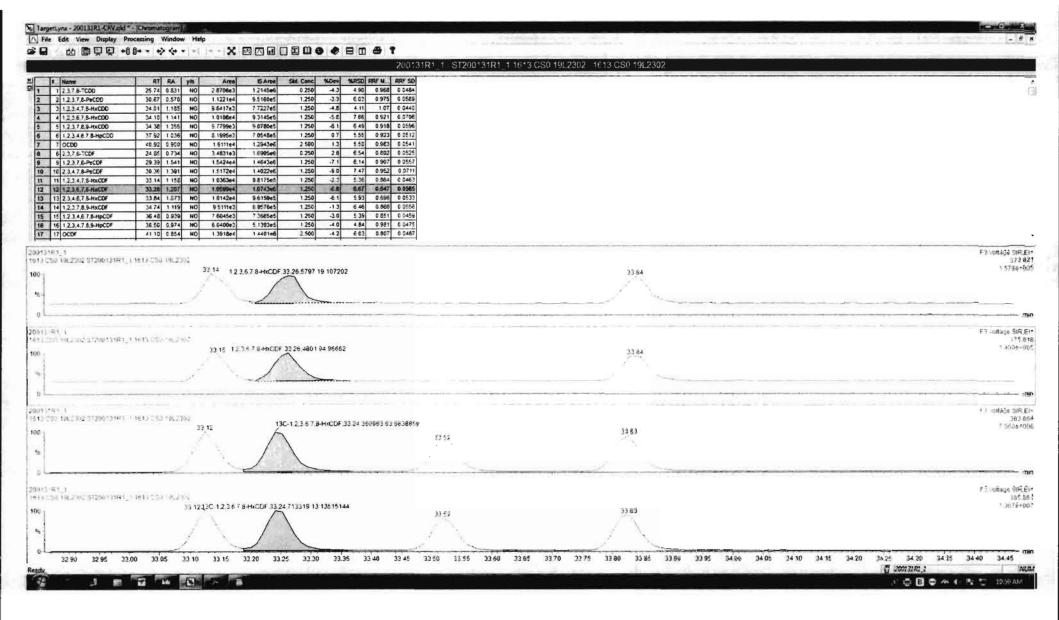
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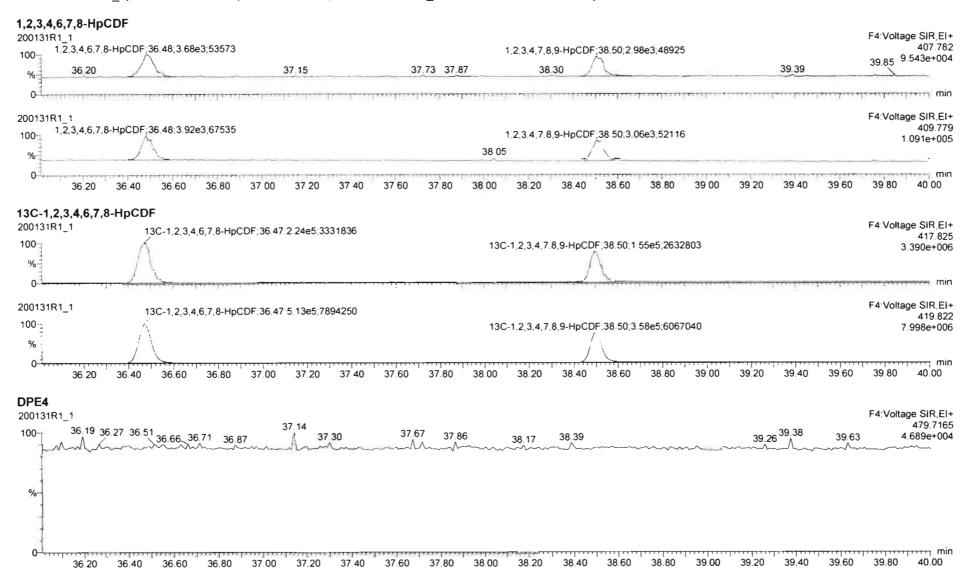
Work Order 1903654 Page 892 of 1184

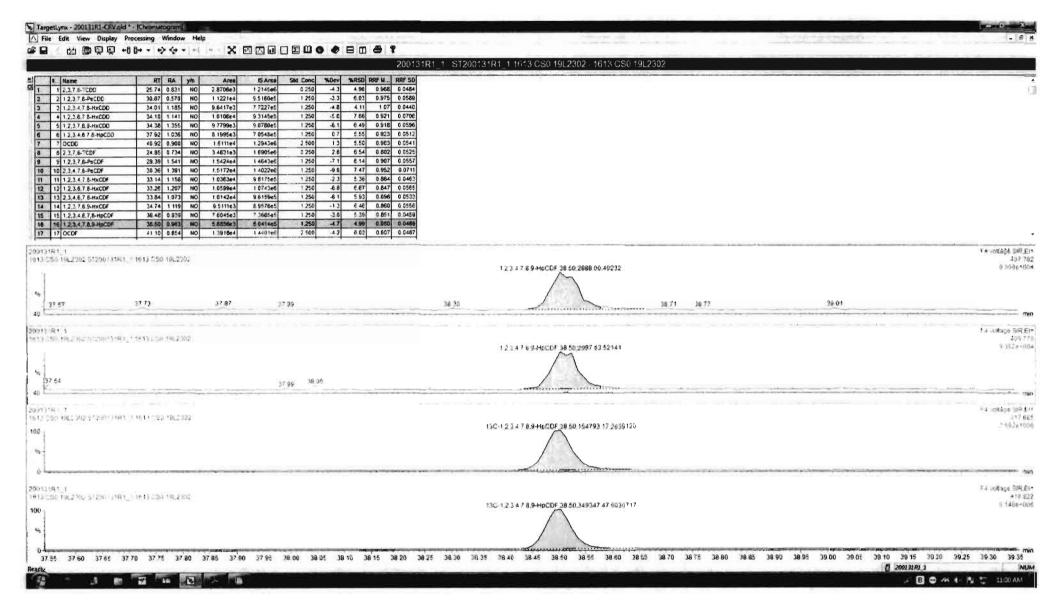


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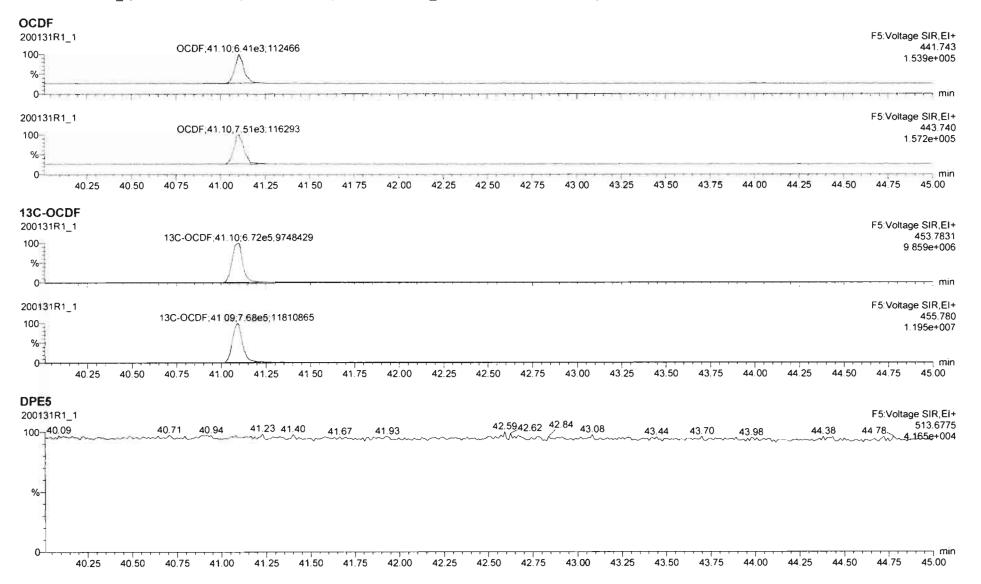


Work Order 1903654 Page 895 of 1184

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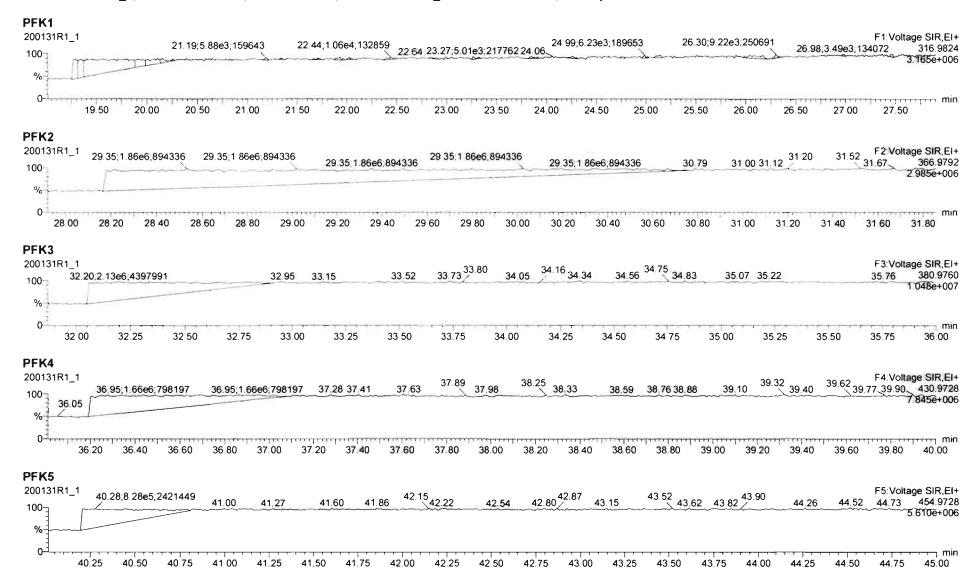
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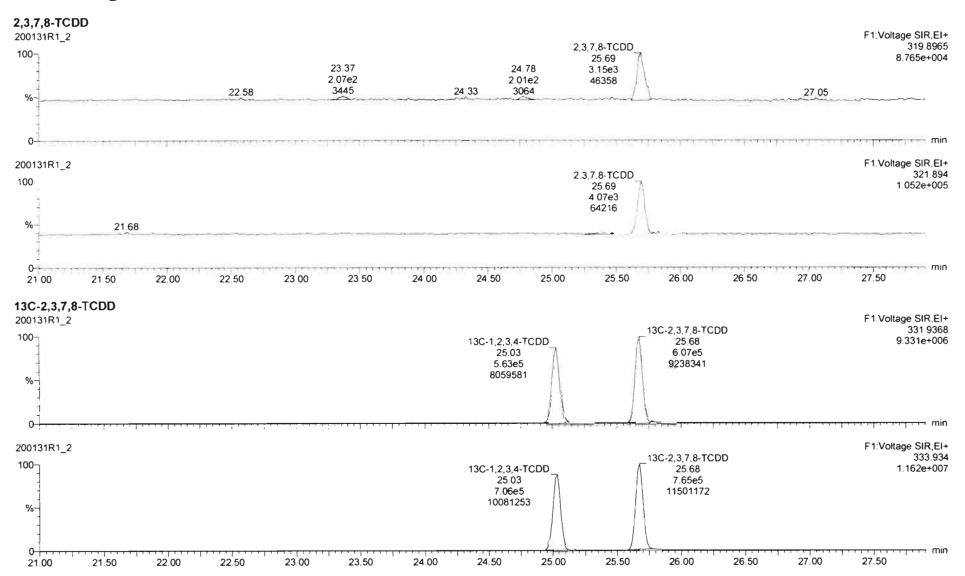
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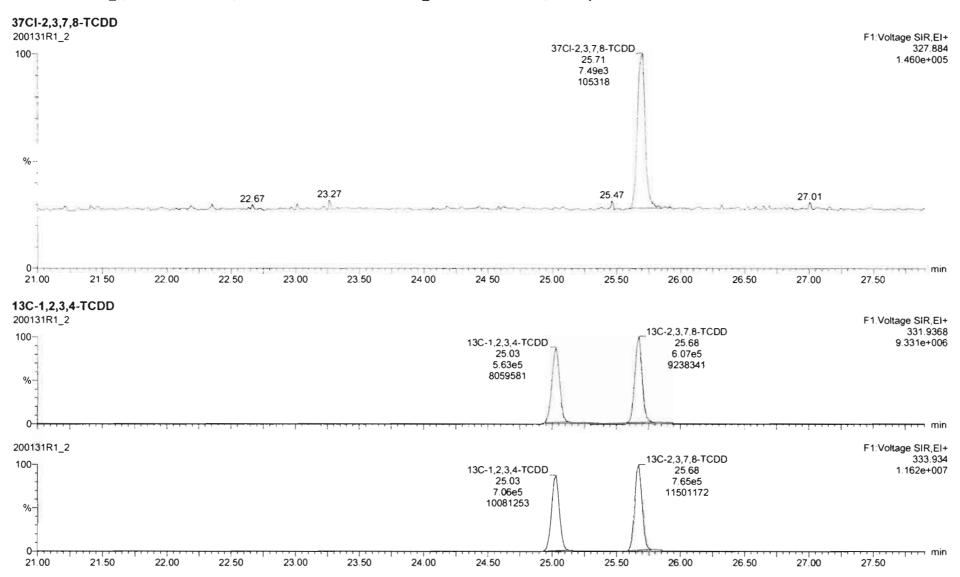
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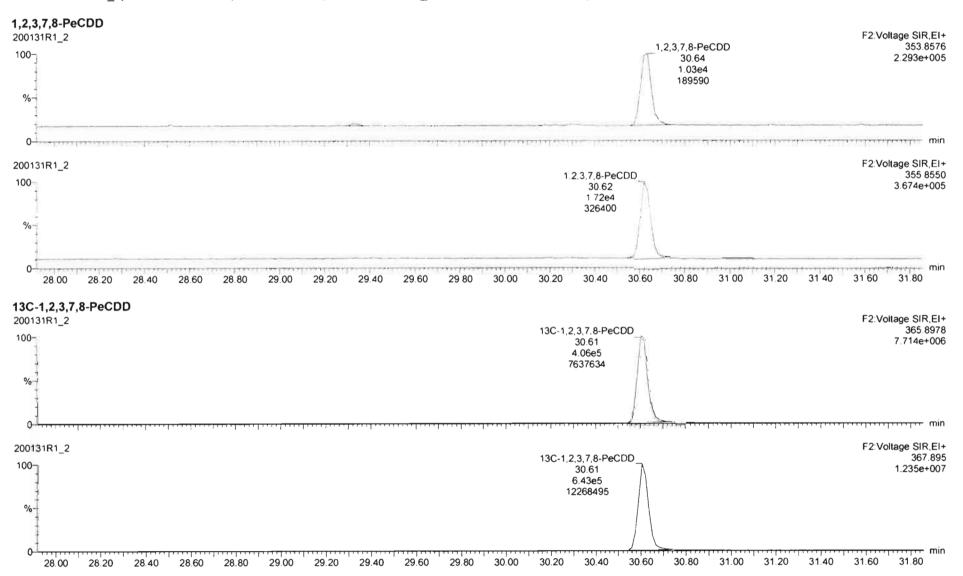
Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

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Dataset:

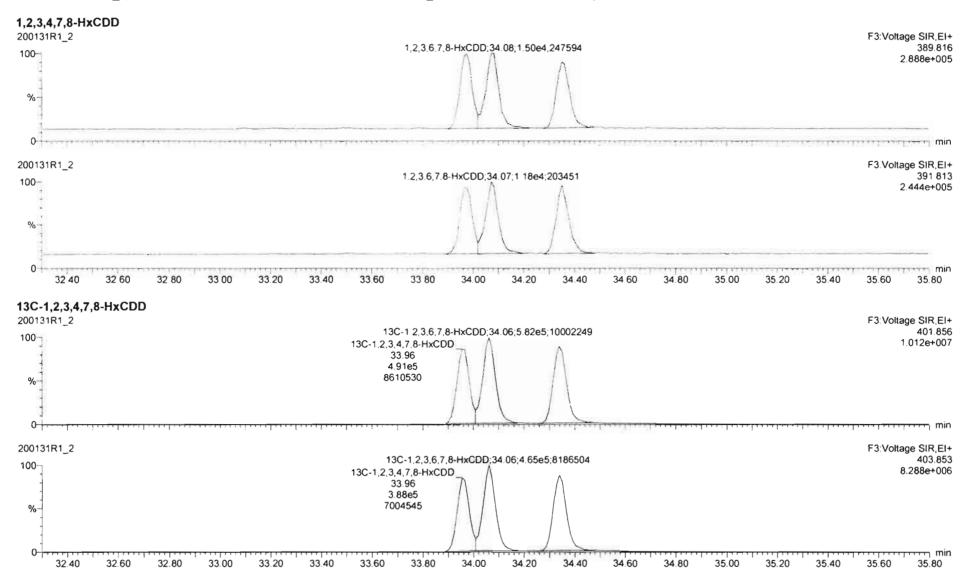
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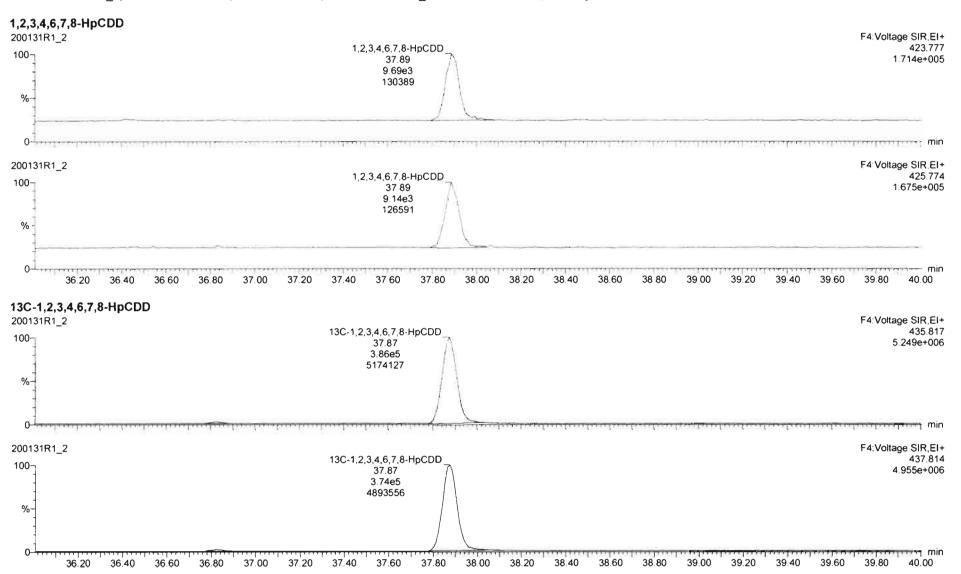
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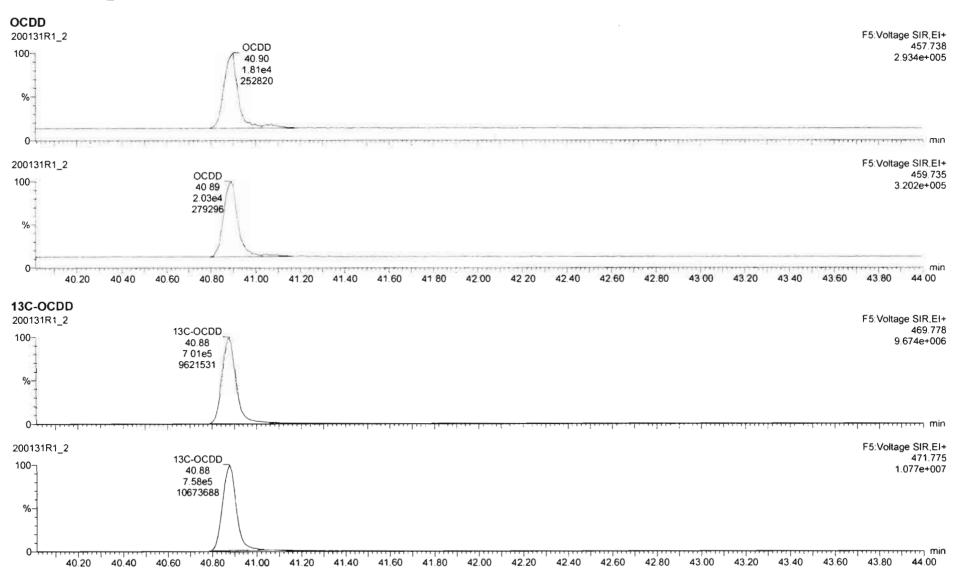
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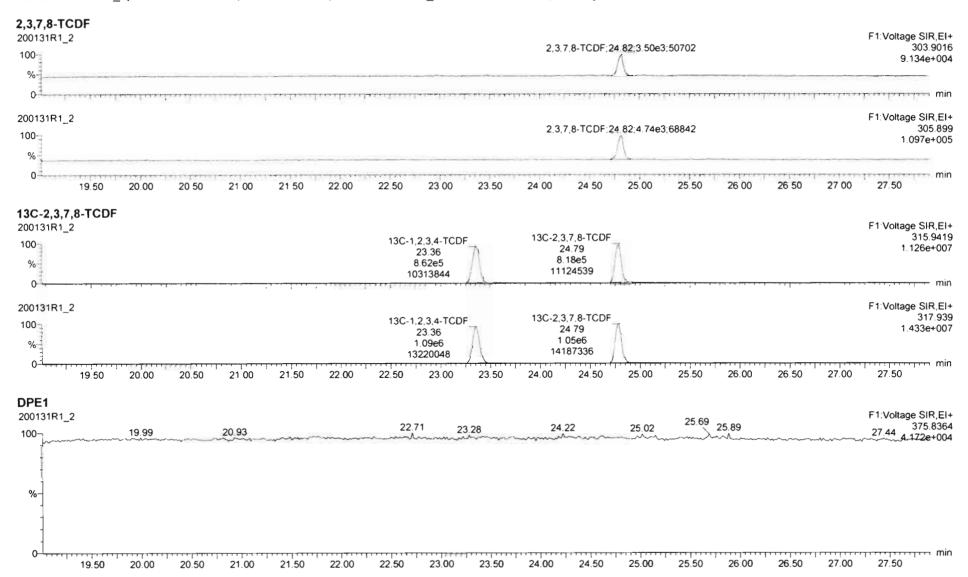
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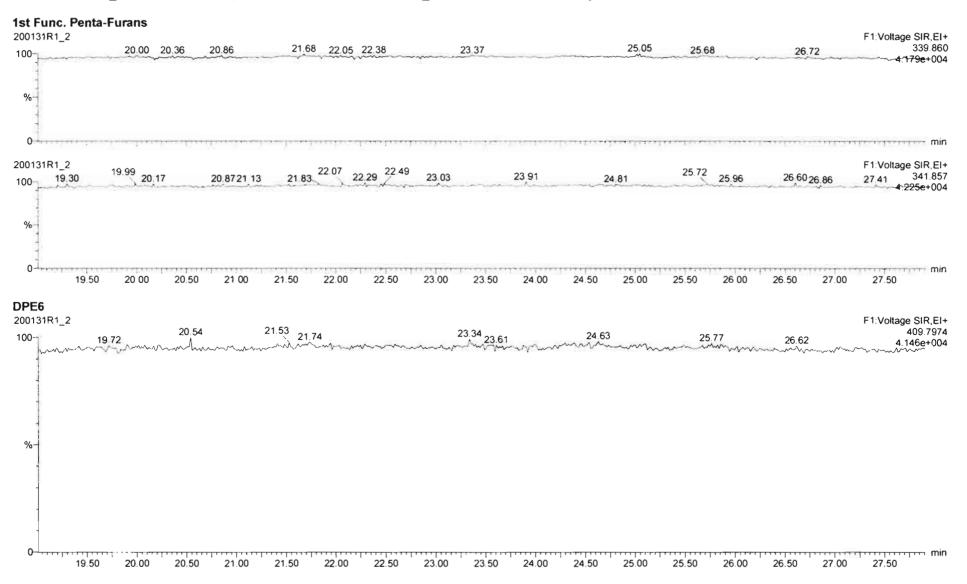
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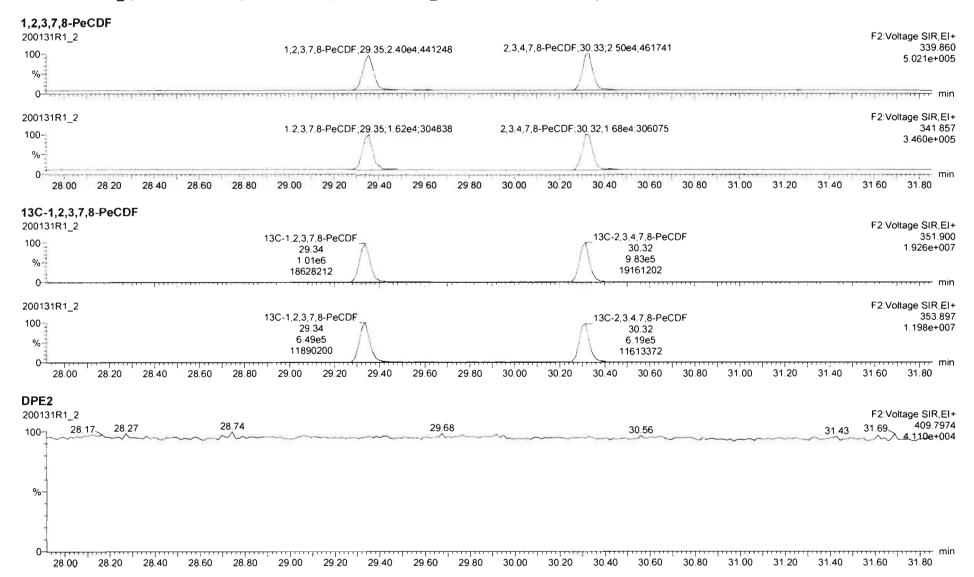


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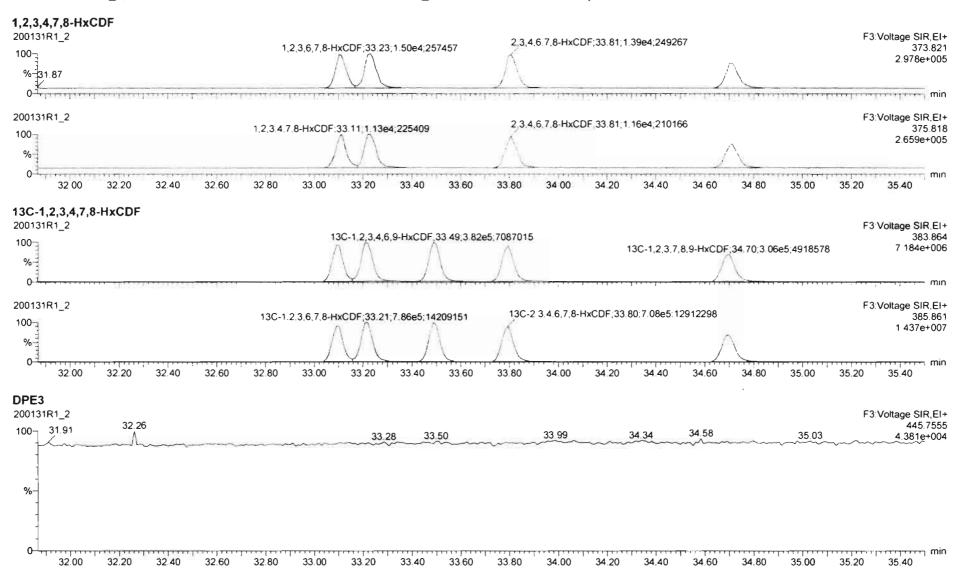
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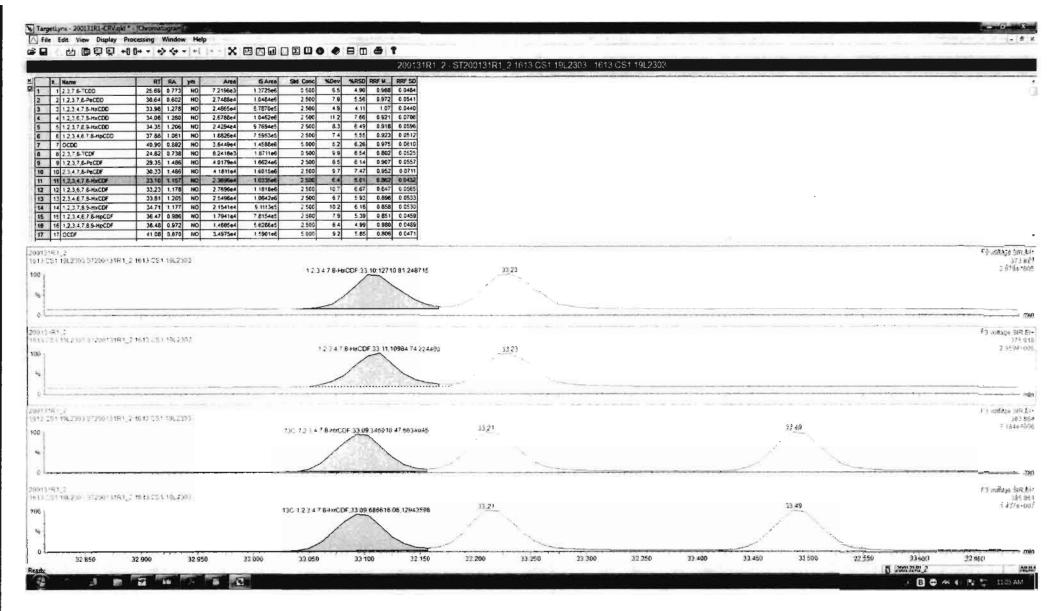
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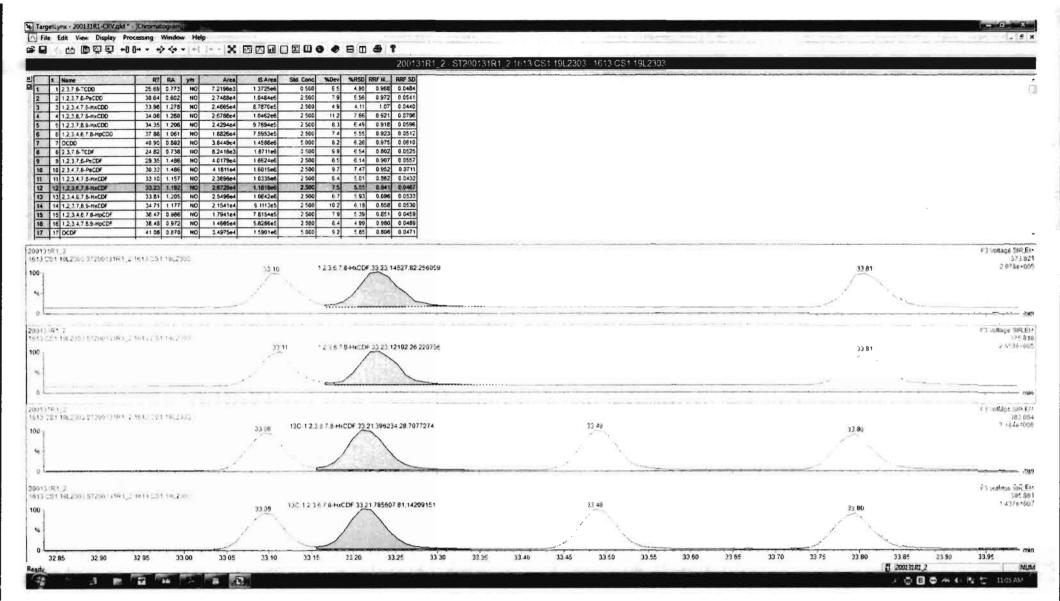
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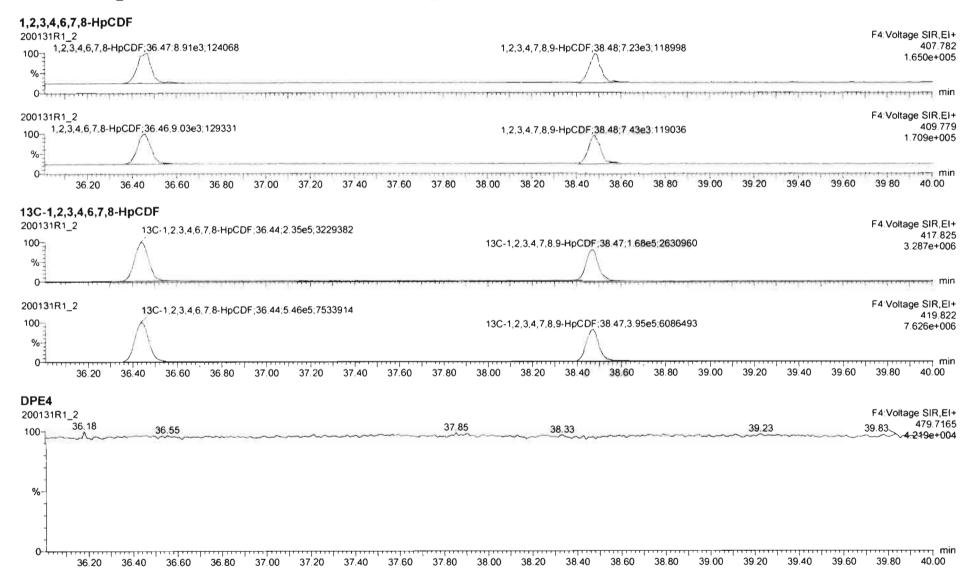


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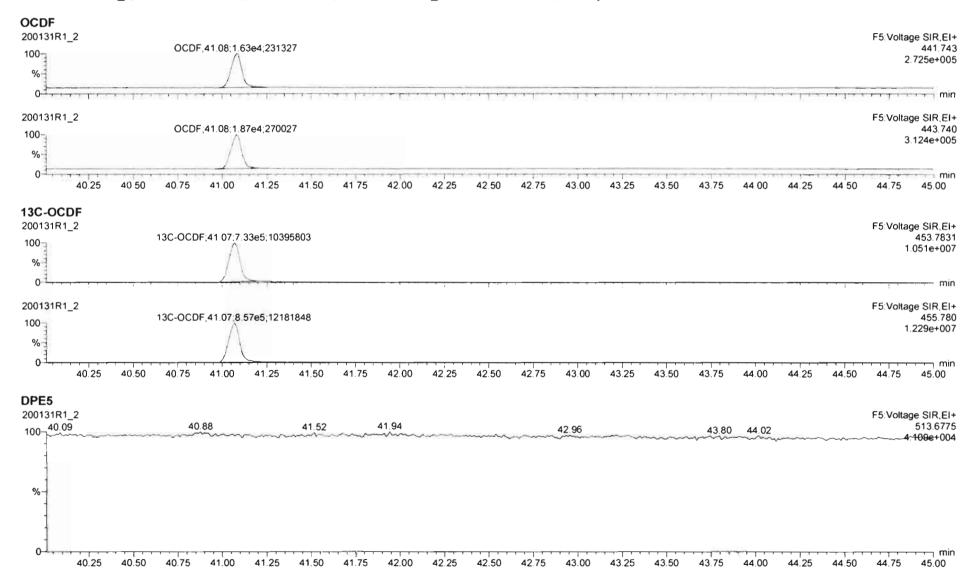
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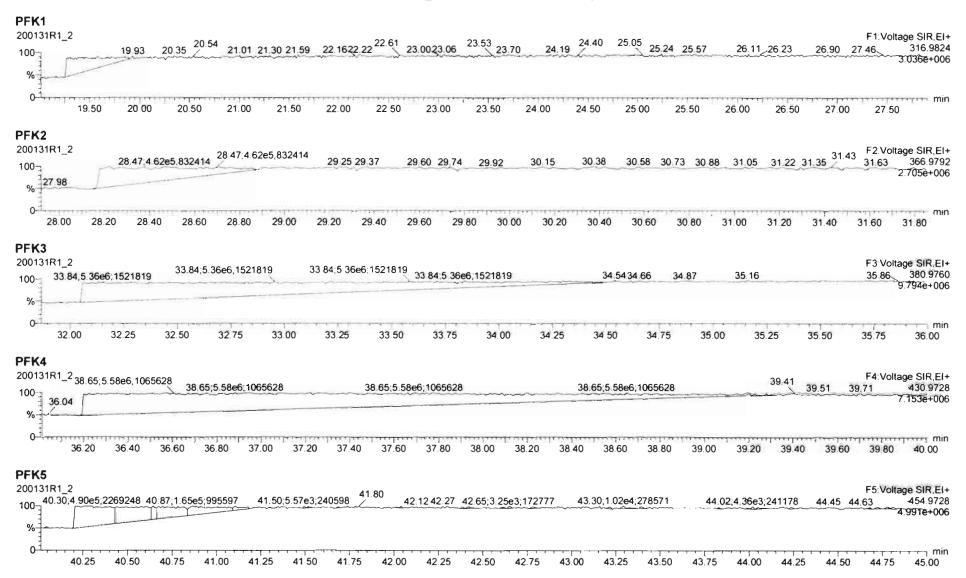
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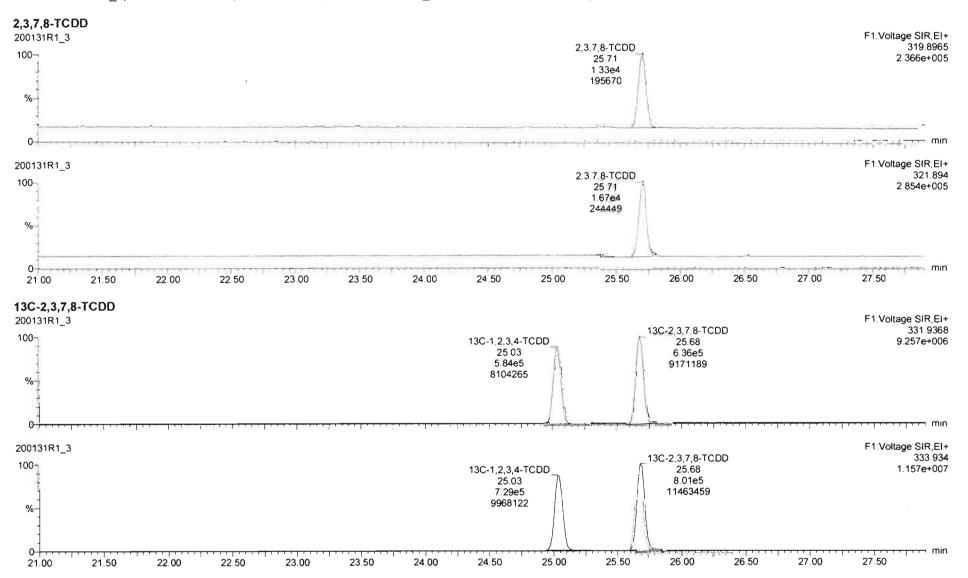
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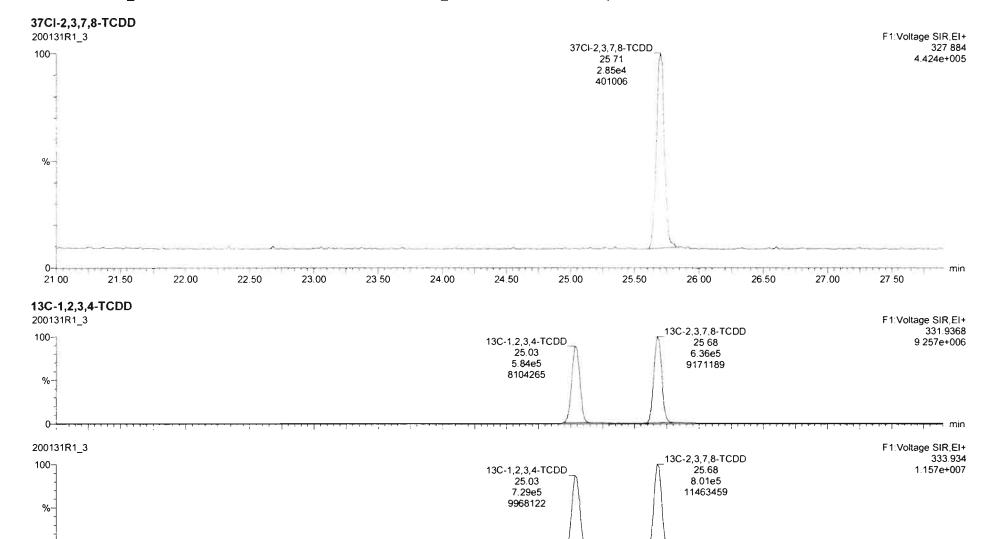


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Name: 200131R1_3, Date: 31-Jan-2020, Time: 18:23:19, ID: ST200131R1_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304



21.50

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27.50

Quantify Sample Report

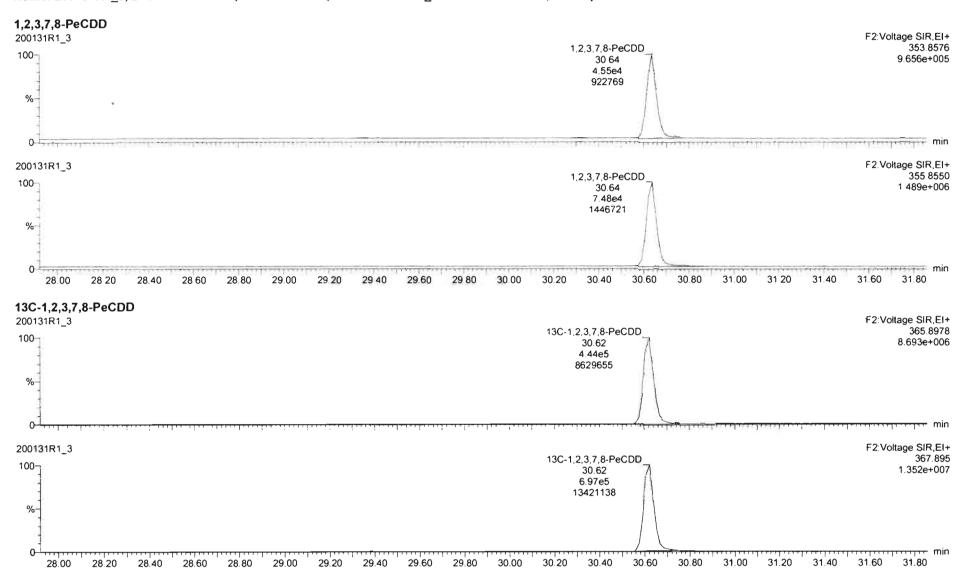
MassLynx 4.1 SCN815

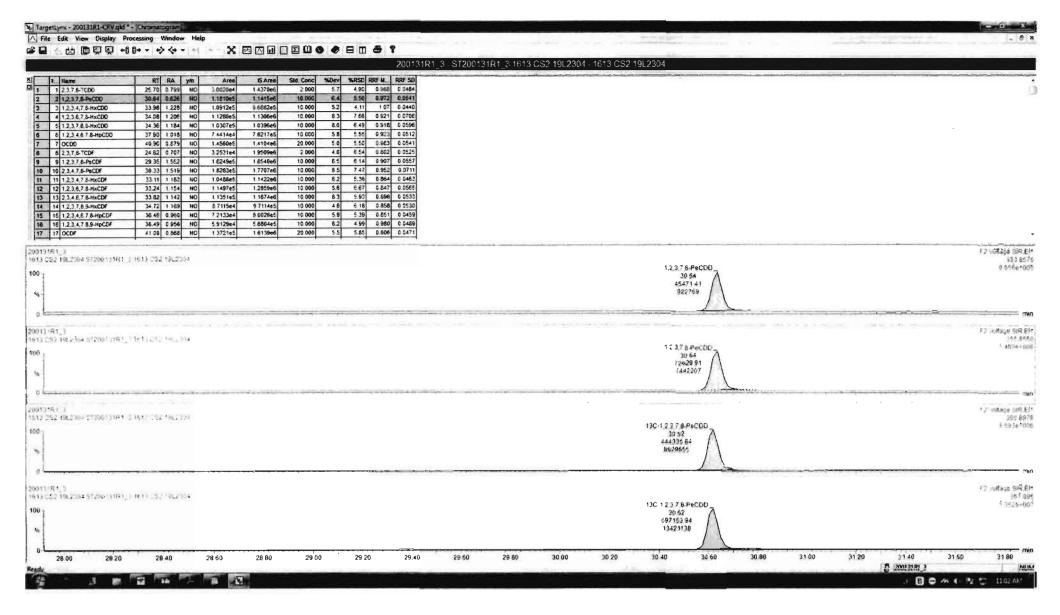
Vista Analytical Laboratory

Dataset:

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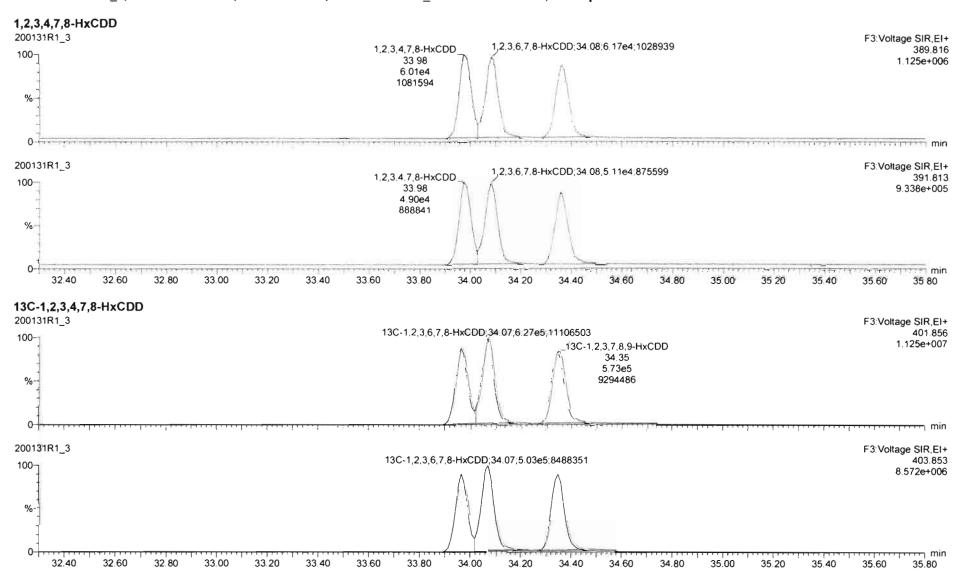


Work Order 1903654 Page 916 of 1184

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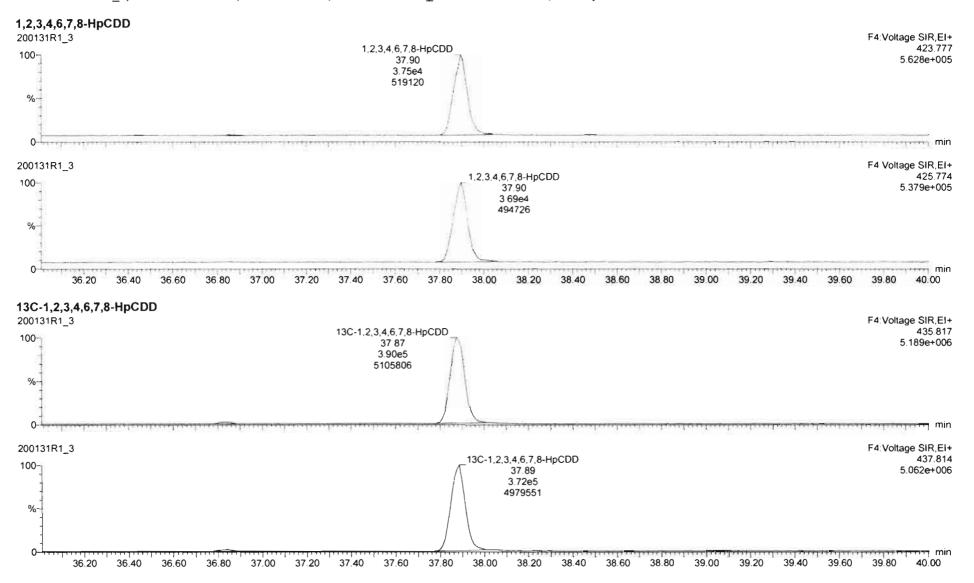
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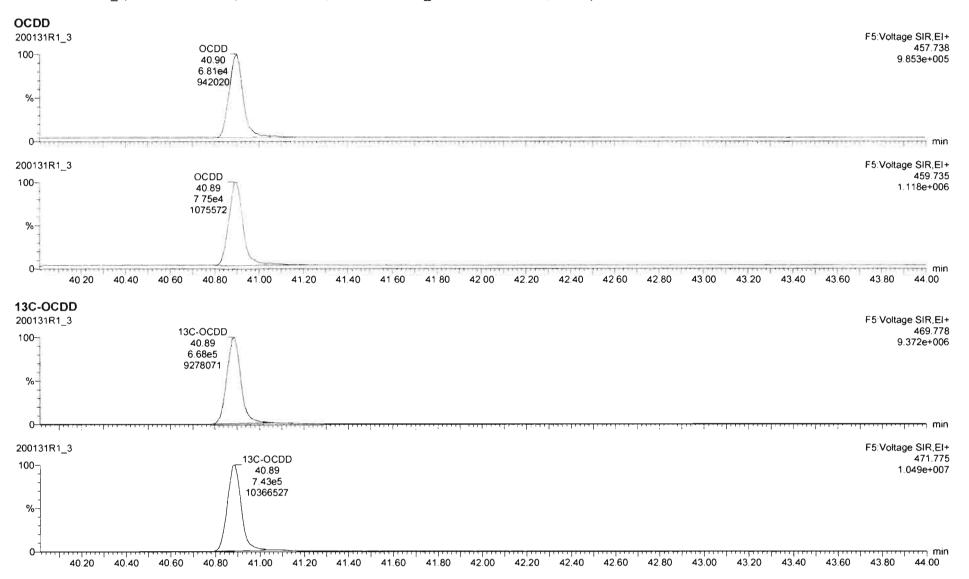
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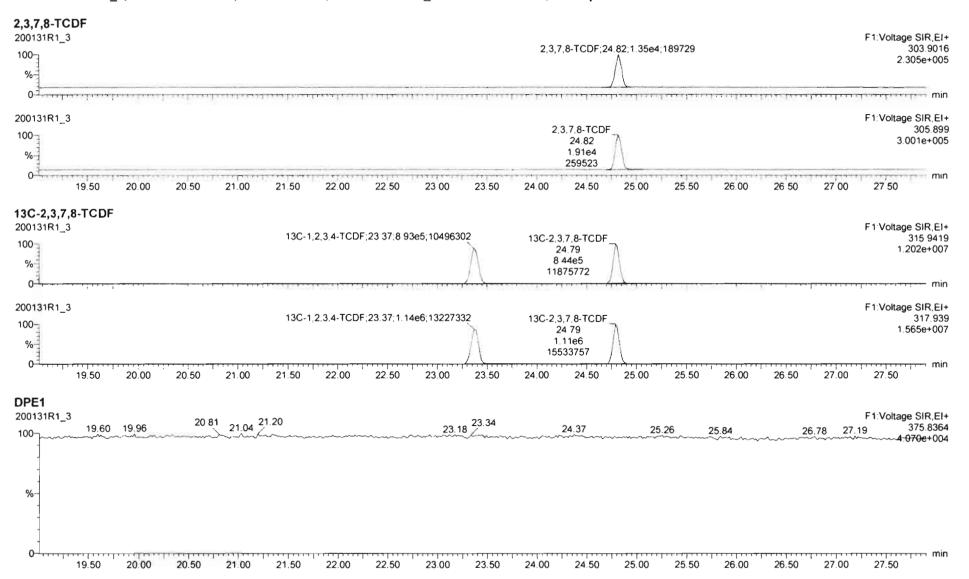
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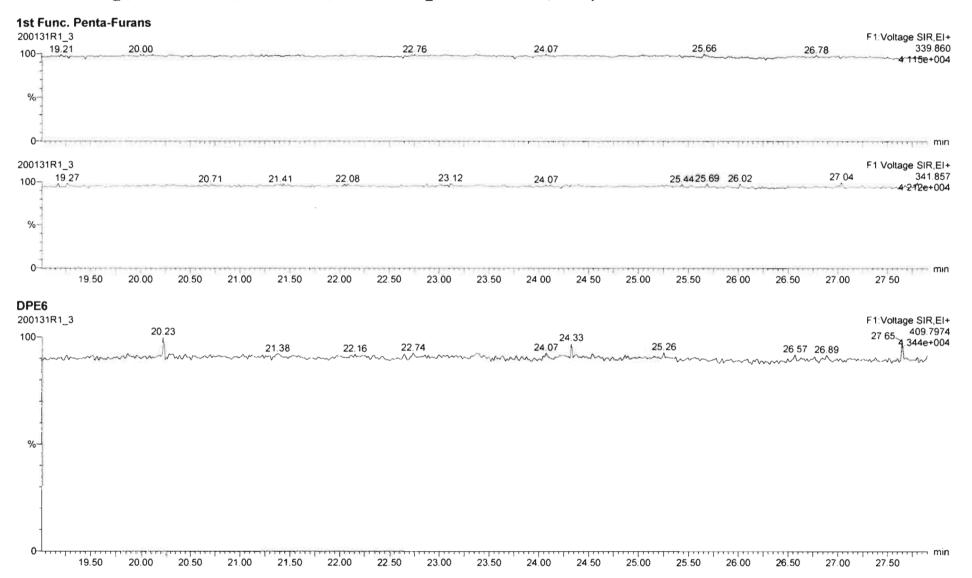
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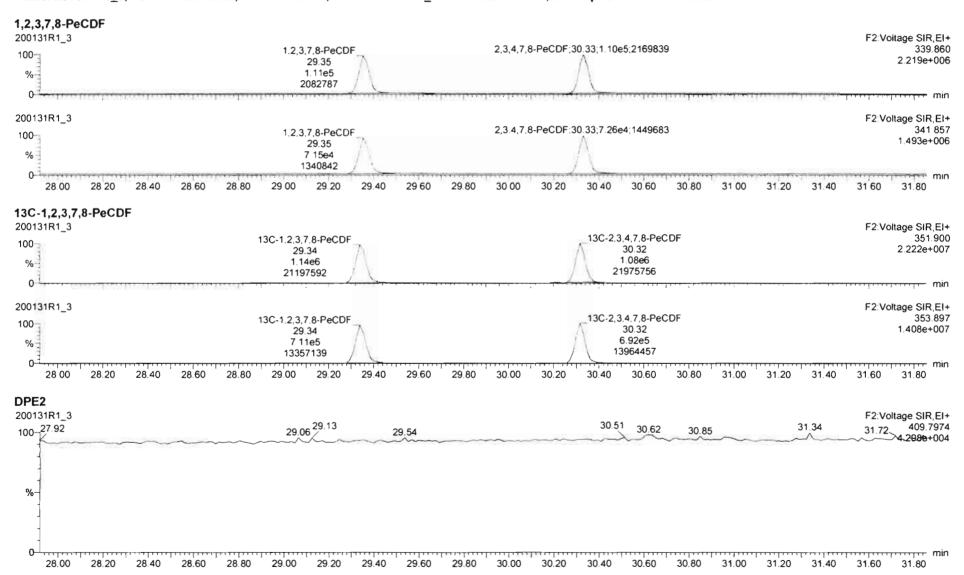
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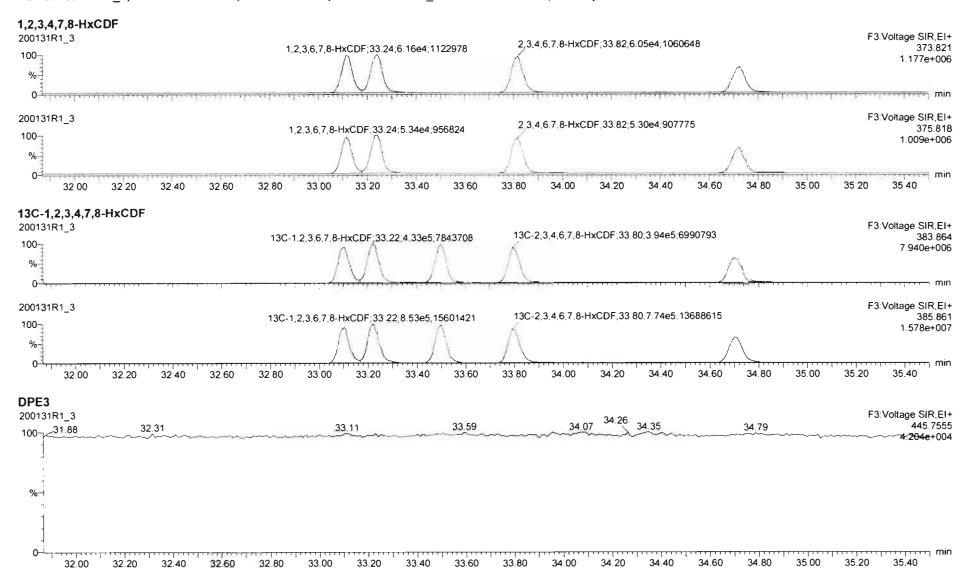
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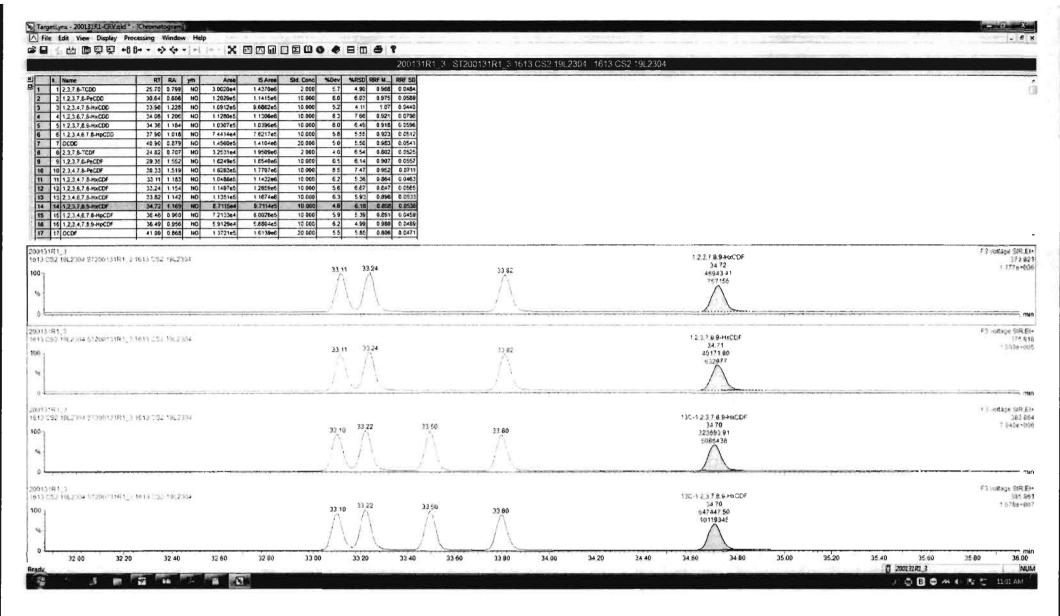


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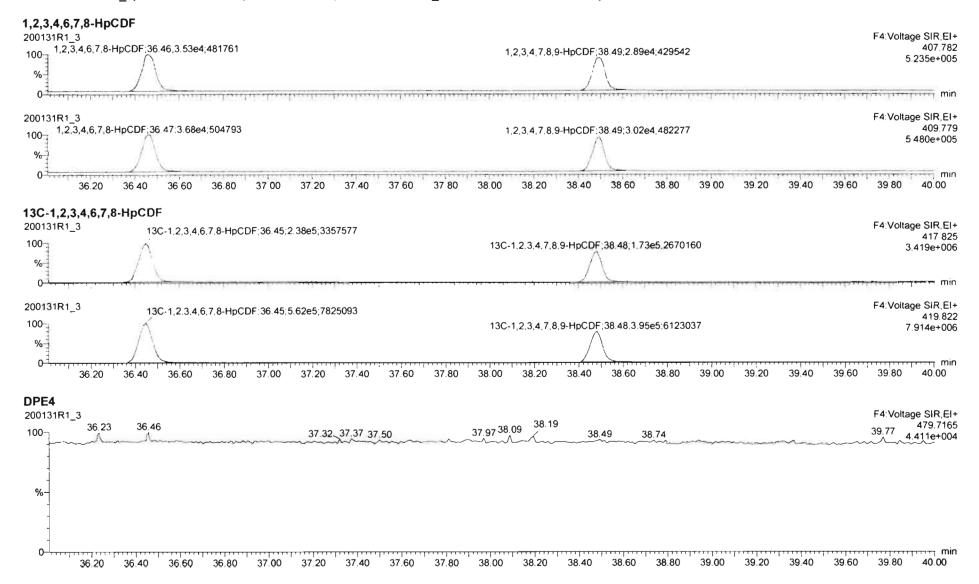




Work Order 1903654 Page 924 of 1184

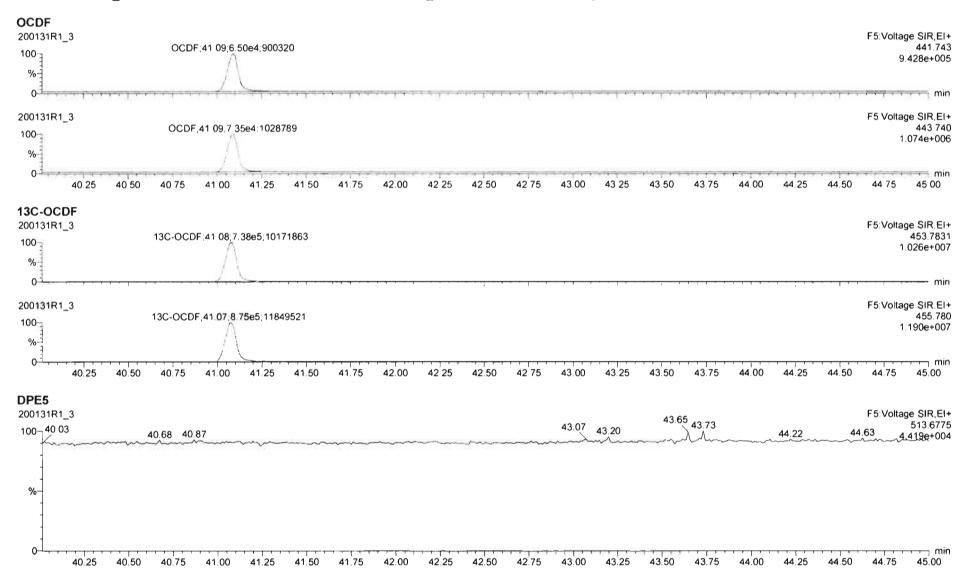
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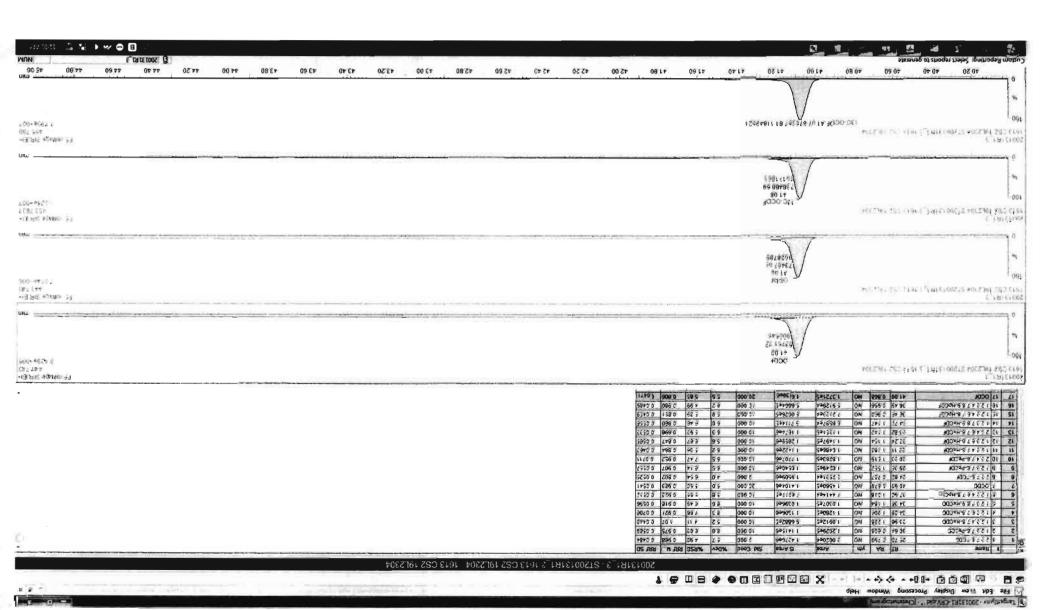
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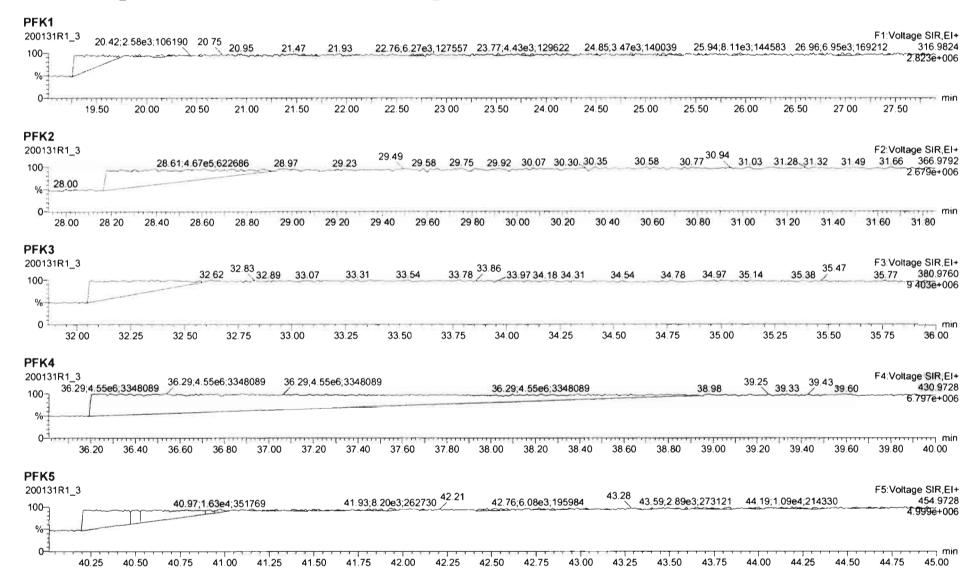




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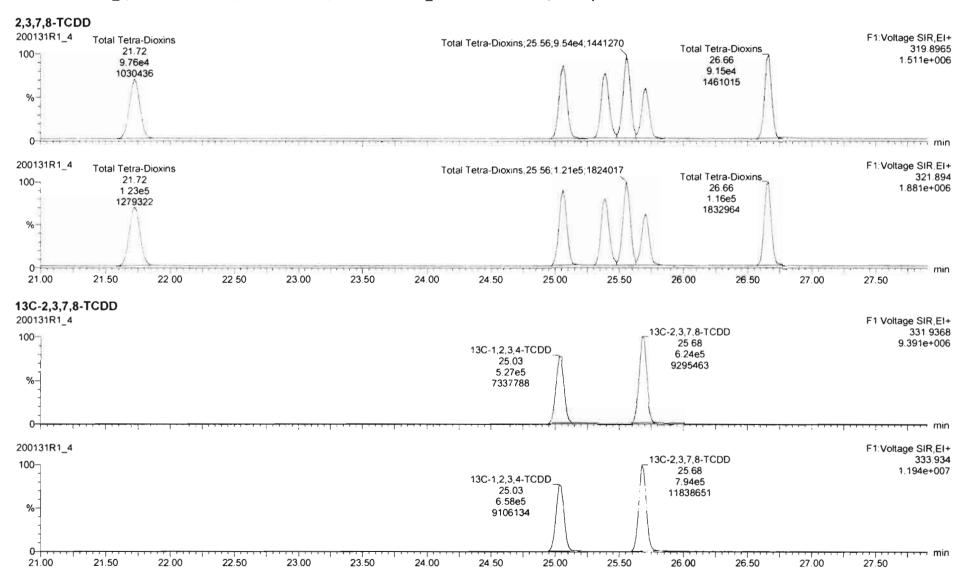
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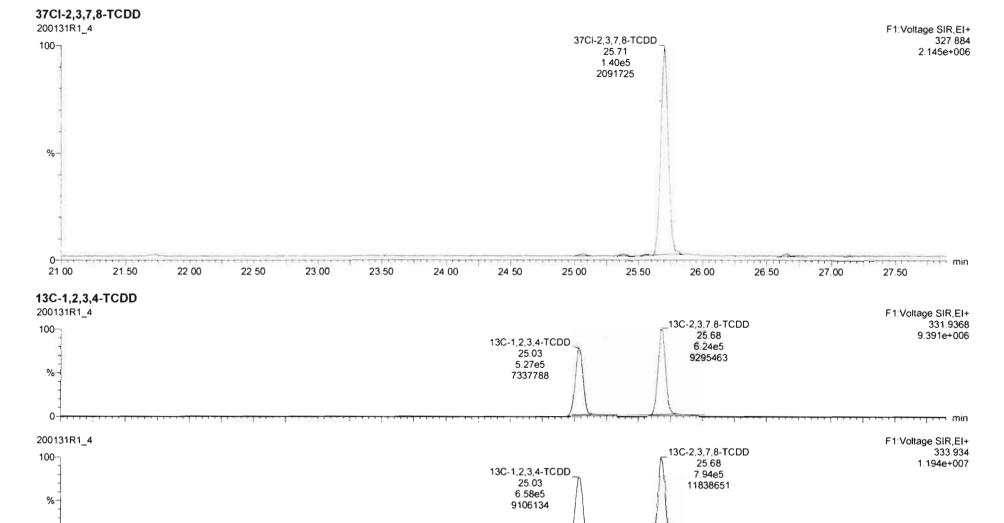


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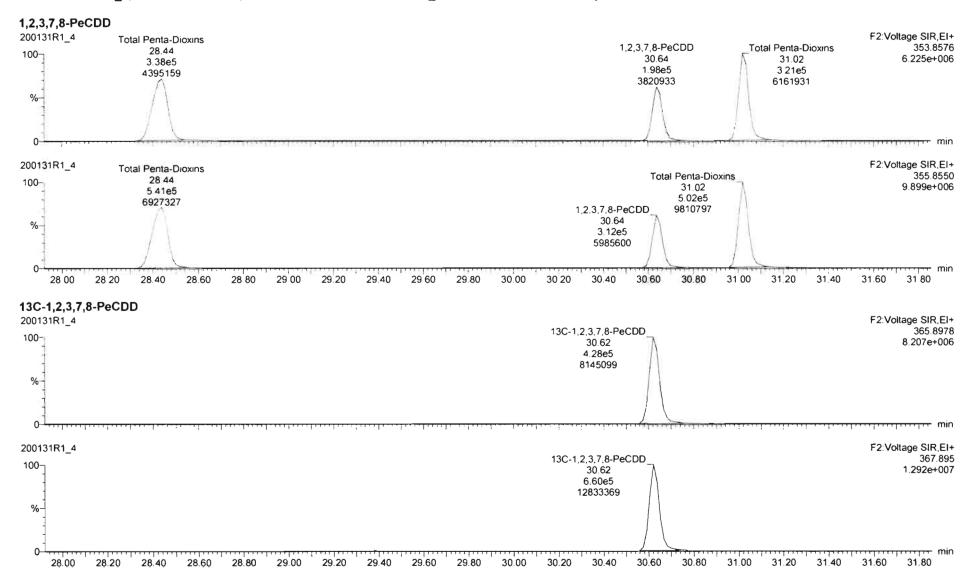
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21.00

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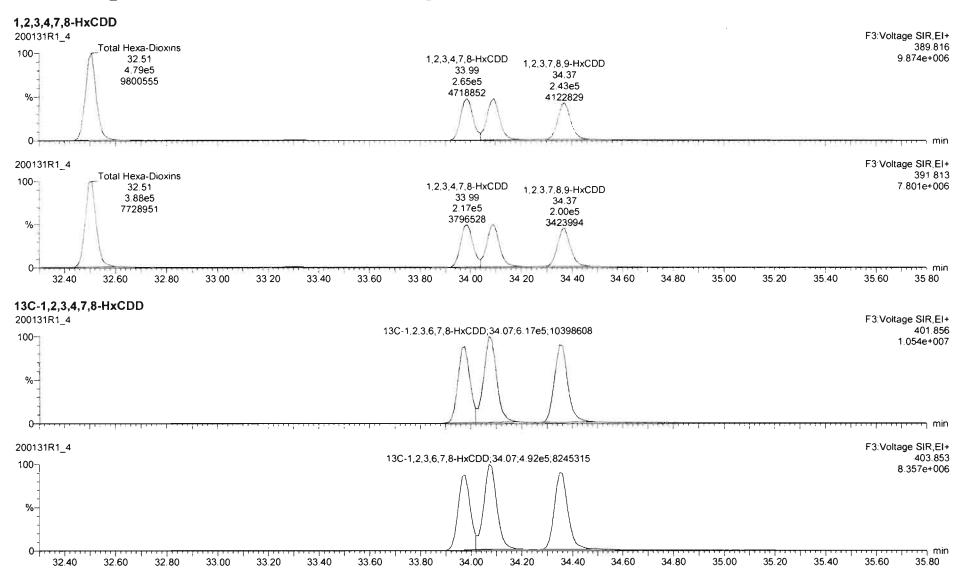


Quantify Sample Report Vista Analytical Laboratory

Dataset:

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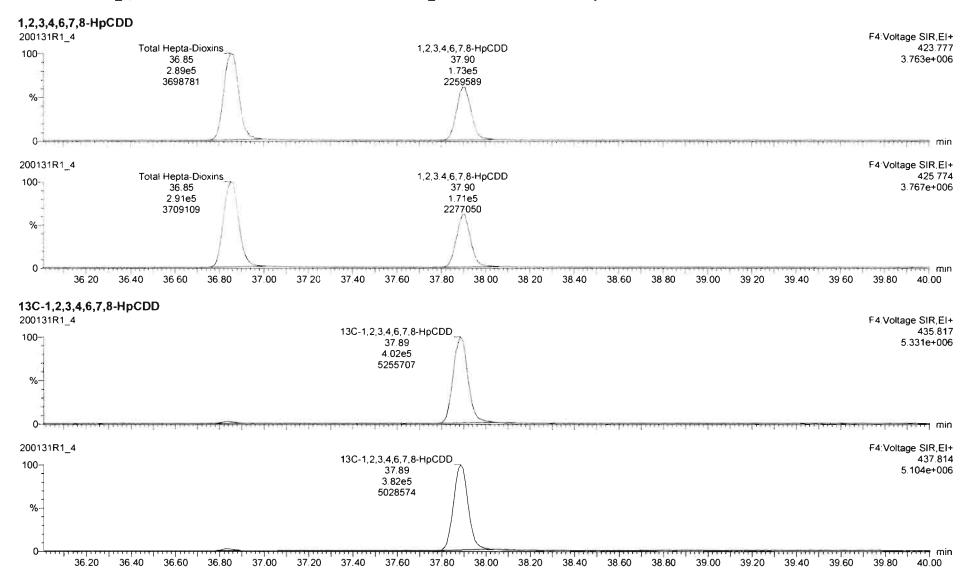
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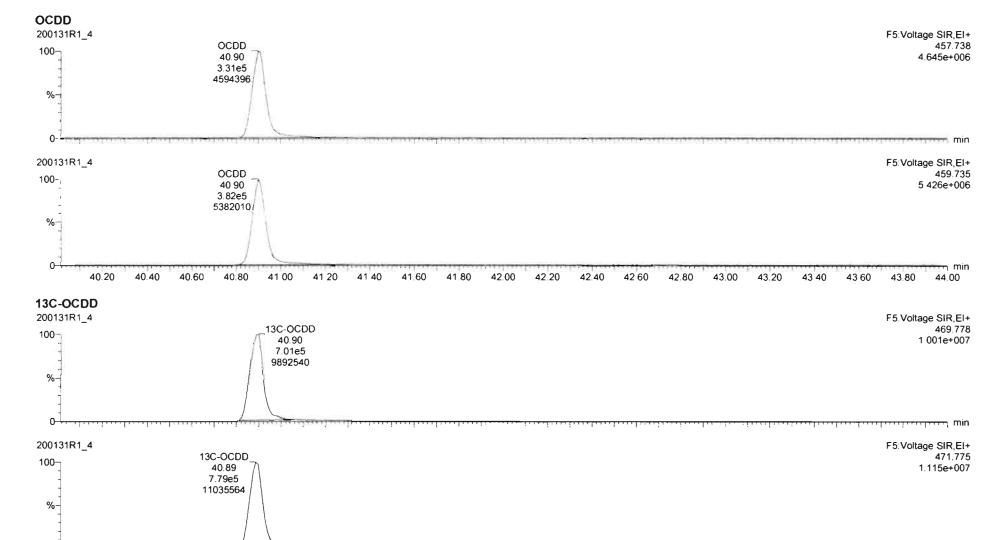


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40.20

40.40

40.60

40.80

41.00

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41.40

41.60

41.80

42.00

42.20

42.40

42.60

42.80

43.00

43.20

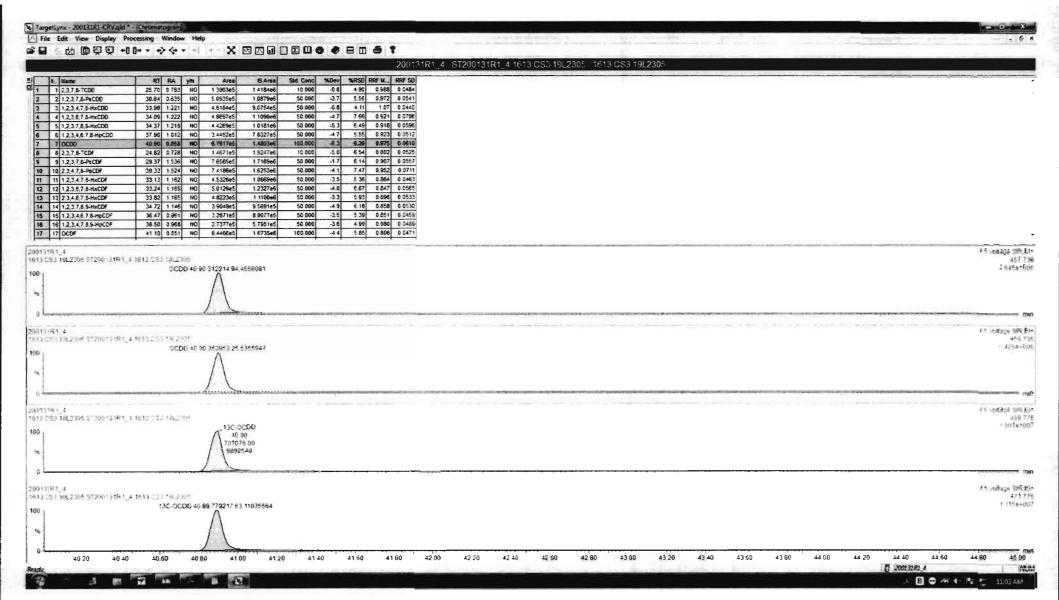
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43.60

43.80

n min

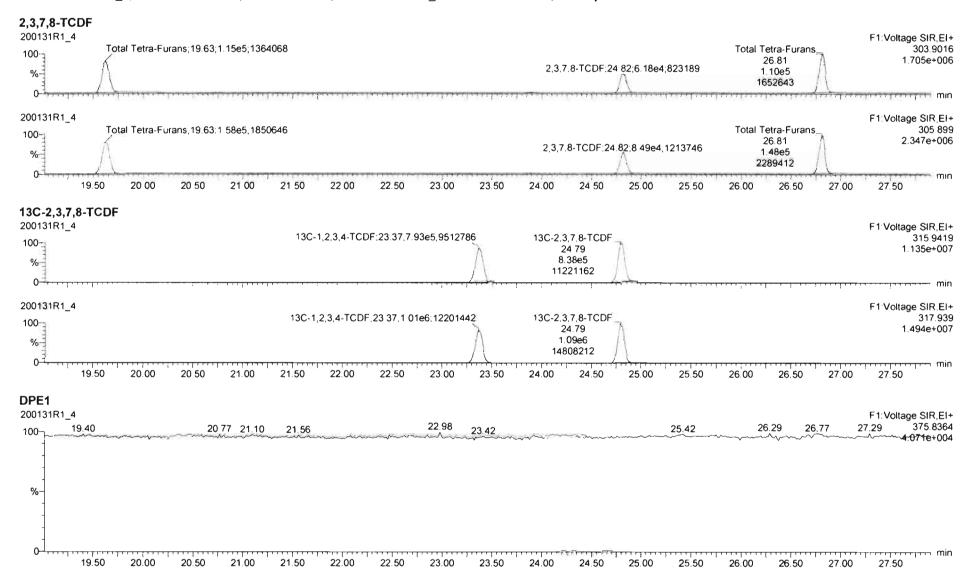
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Work Order 1903654 Page 935 of 1184

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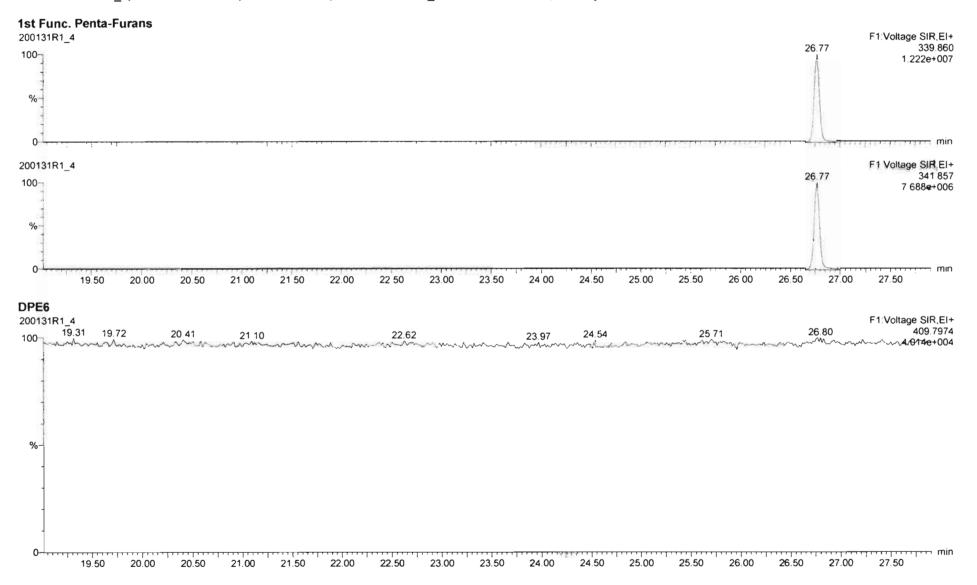
Quantify Sample Report Vista Analytical Laboratory

Dataset:

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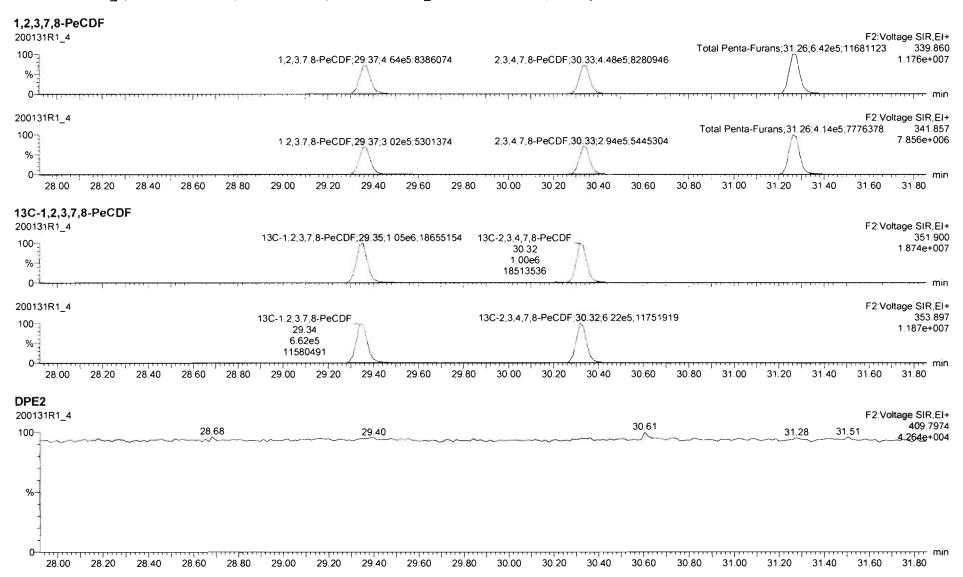
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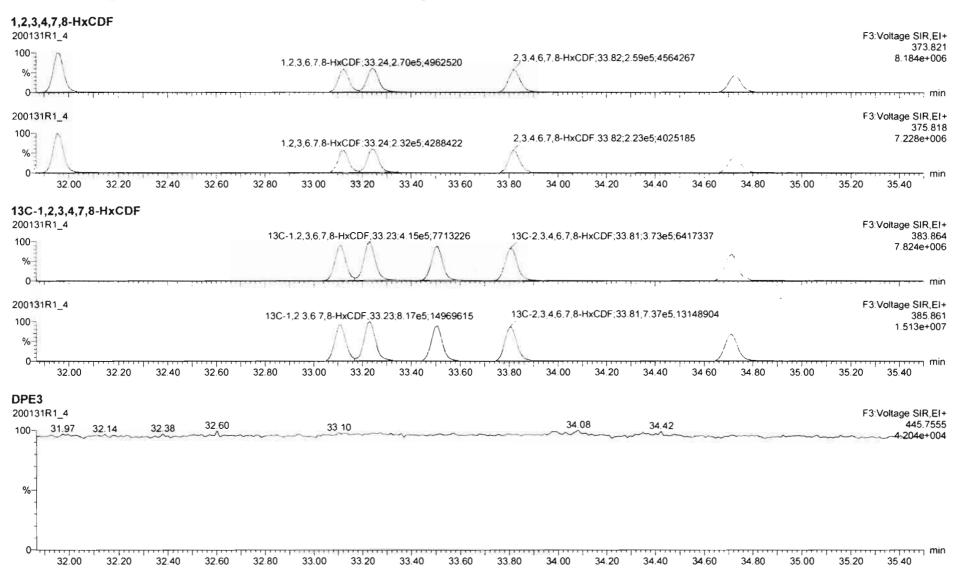
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Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time



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Last Altered: Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time



Quantify Sample Report

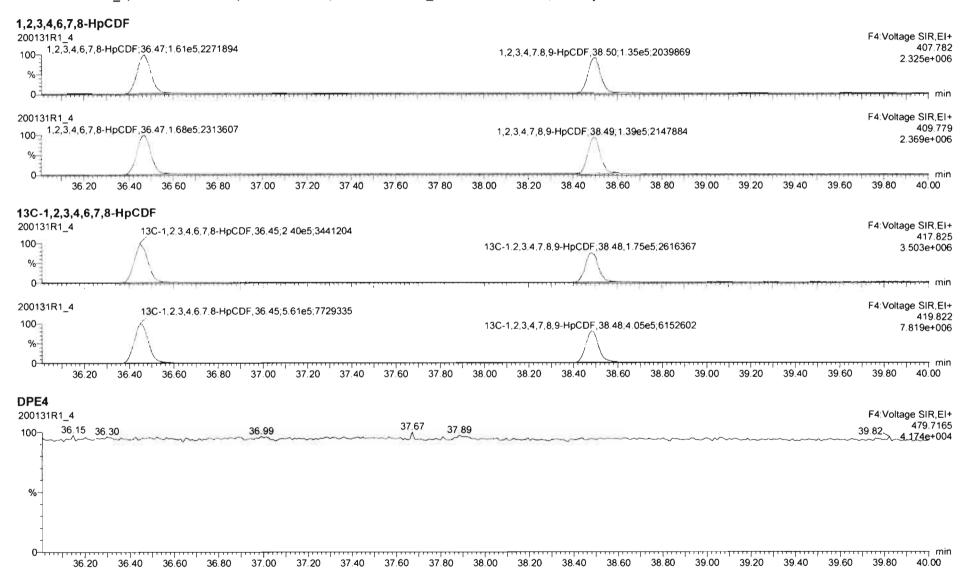
Vista Analytical Laboratory

Dataset:

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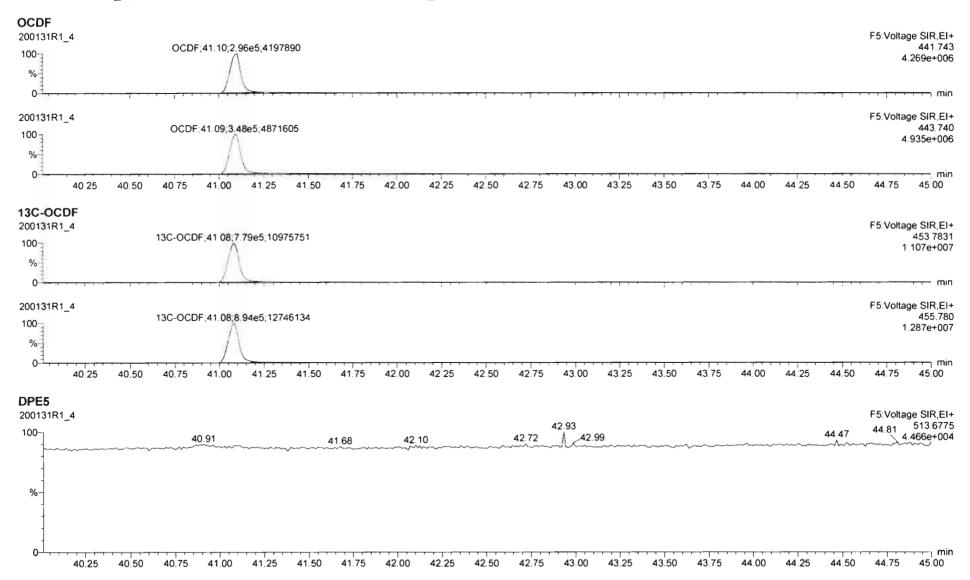
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MassLynx 4.1 SCN815



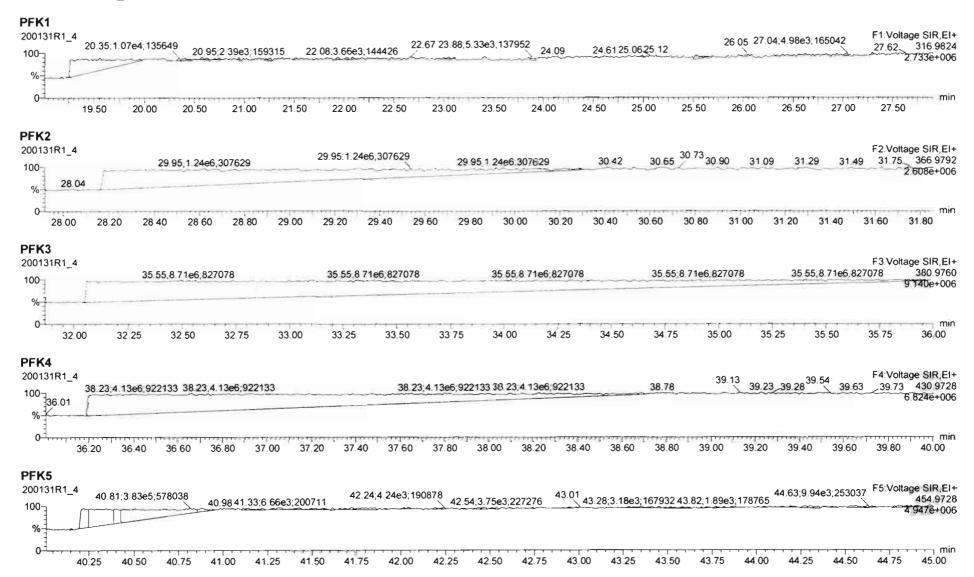
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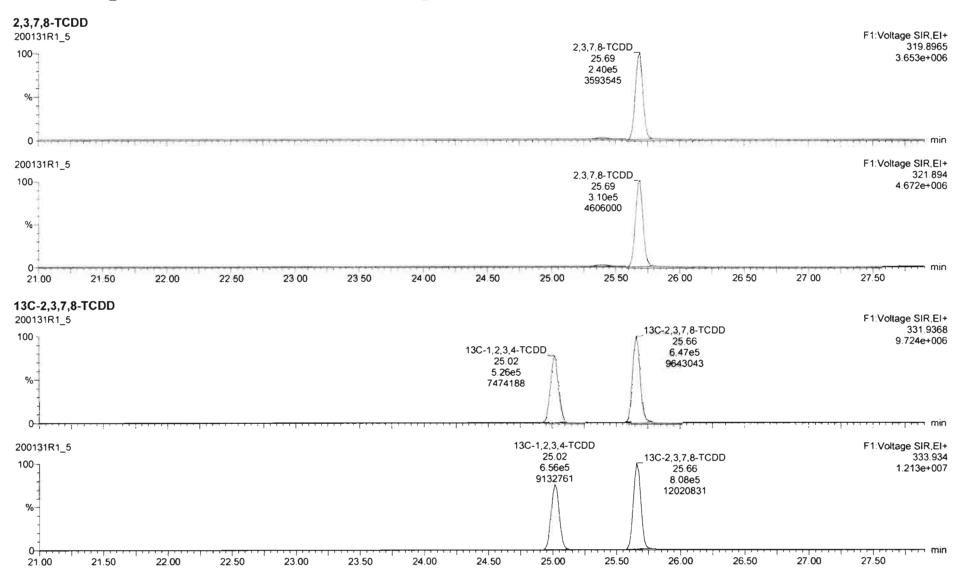
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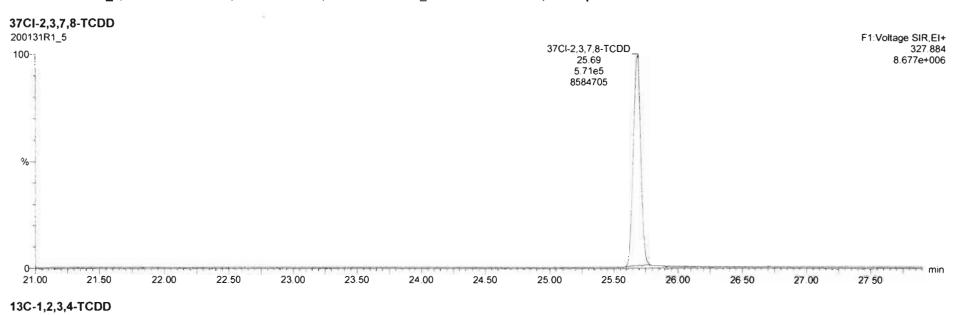
Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time

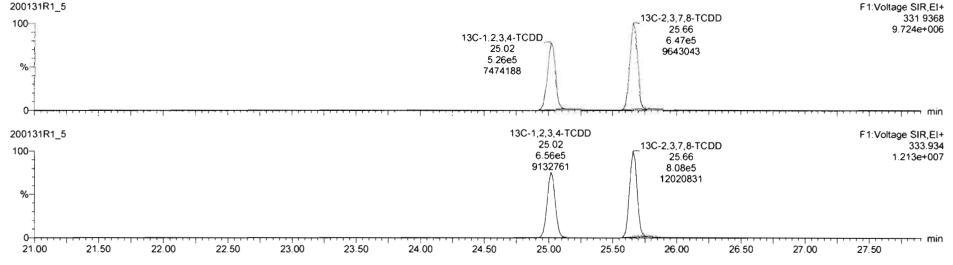


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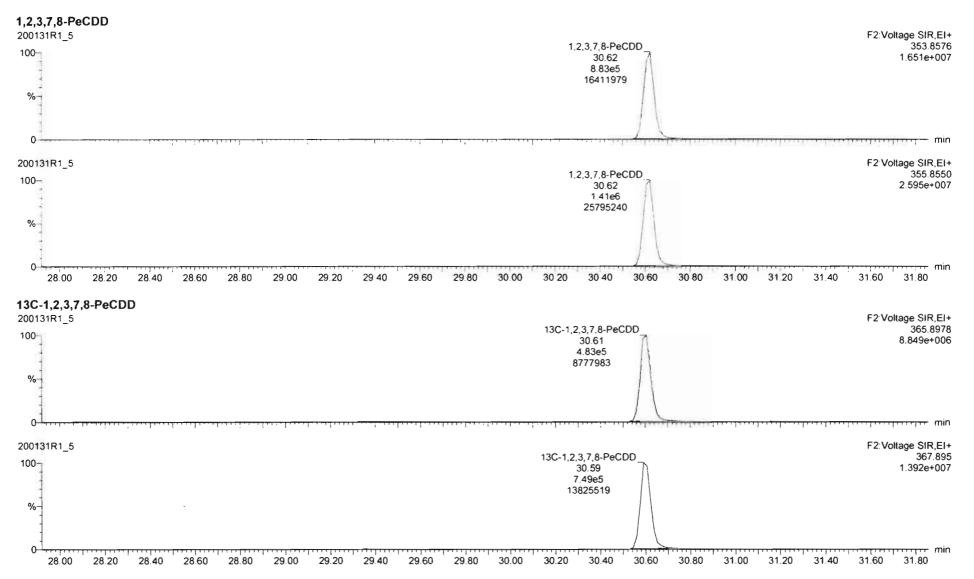




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Quantify Sample Report

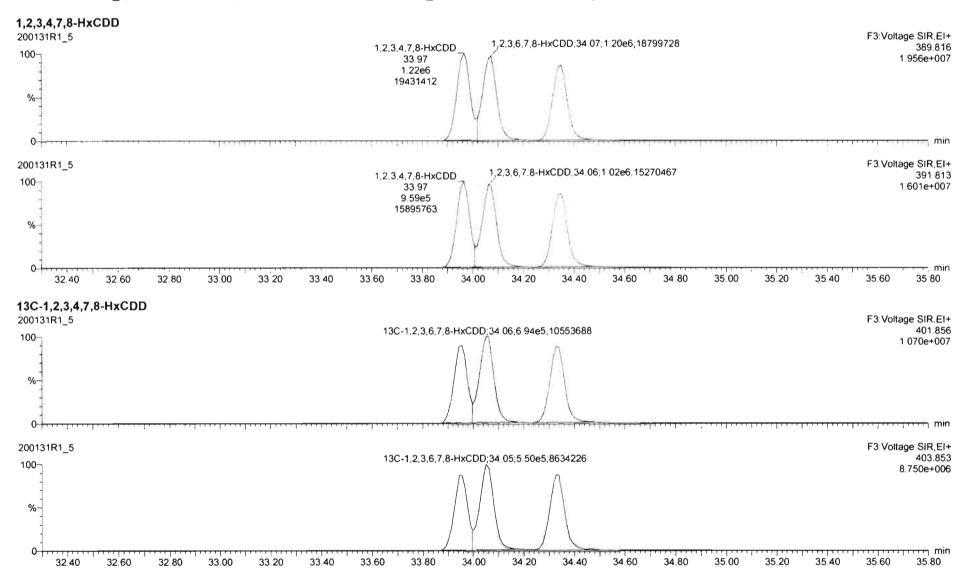
MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

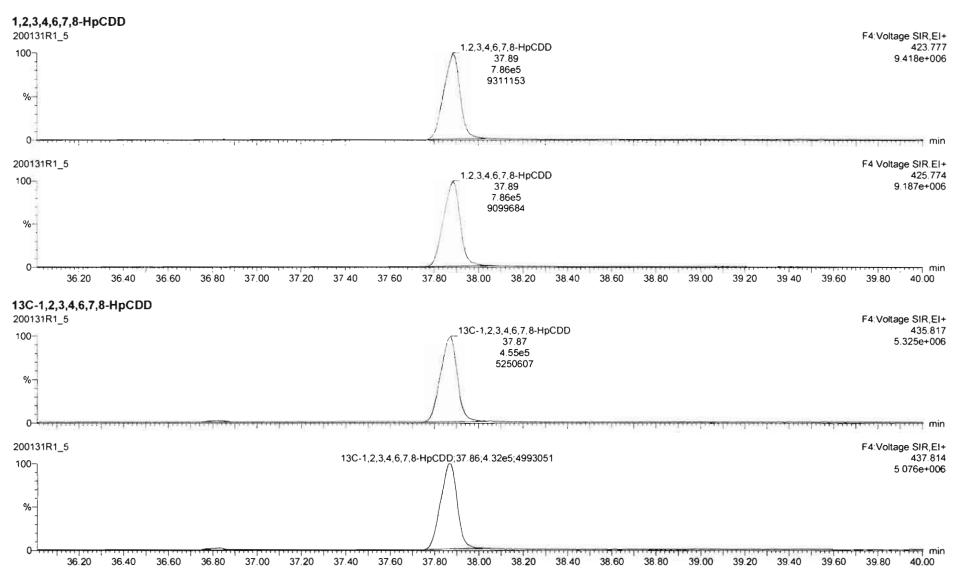
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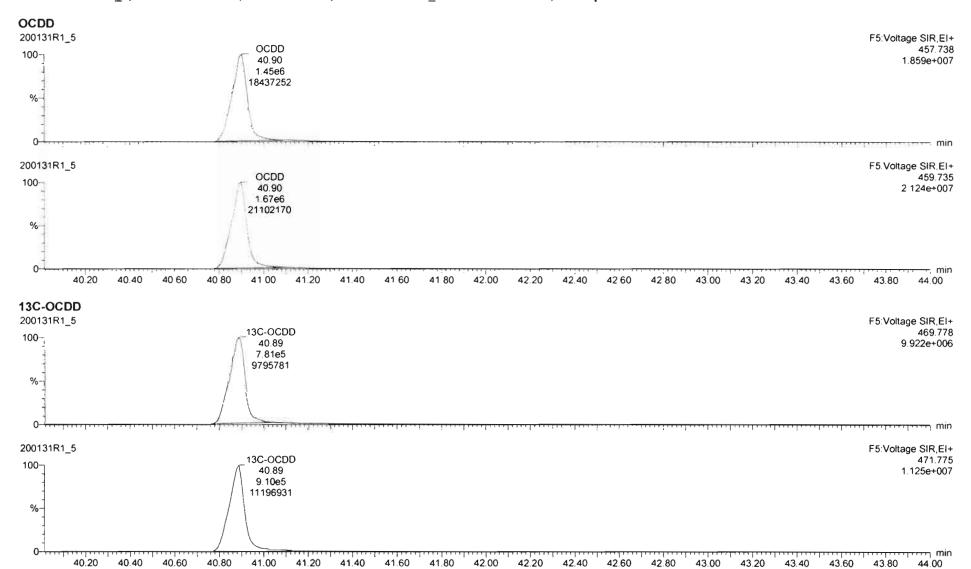
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Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time



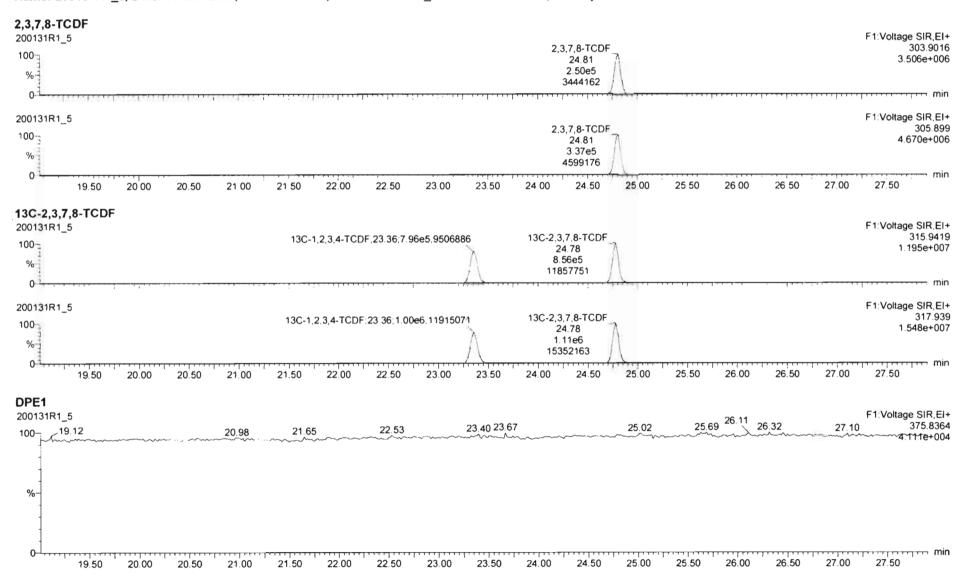
Quantify Sample Report Vista Analytical Laboratory

Dataset:

Last Altered: Printed:

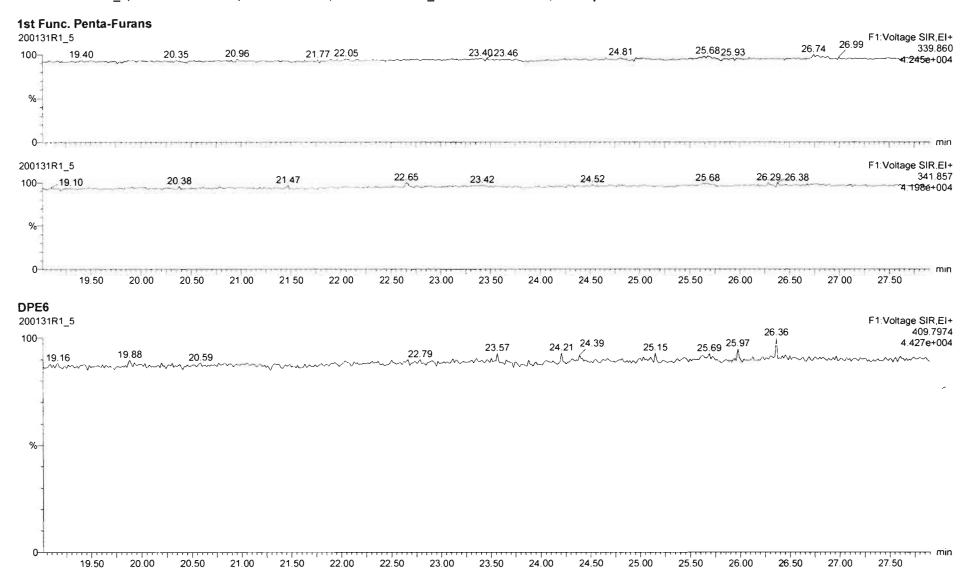
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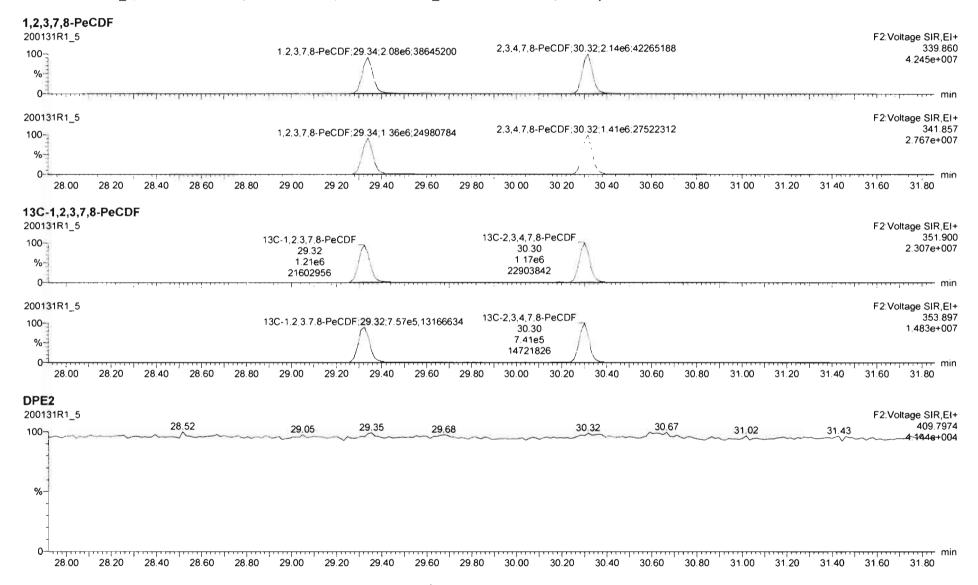
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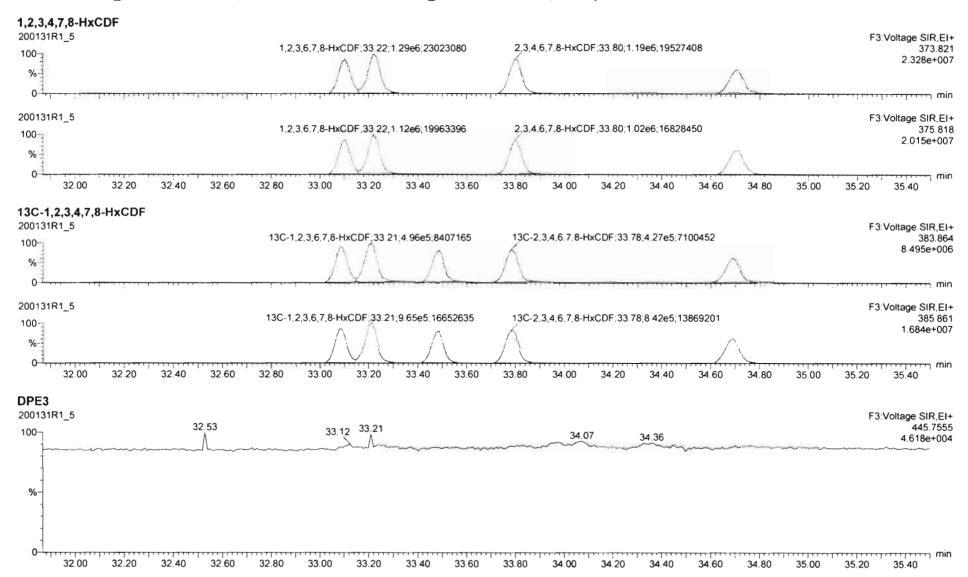
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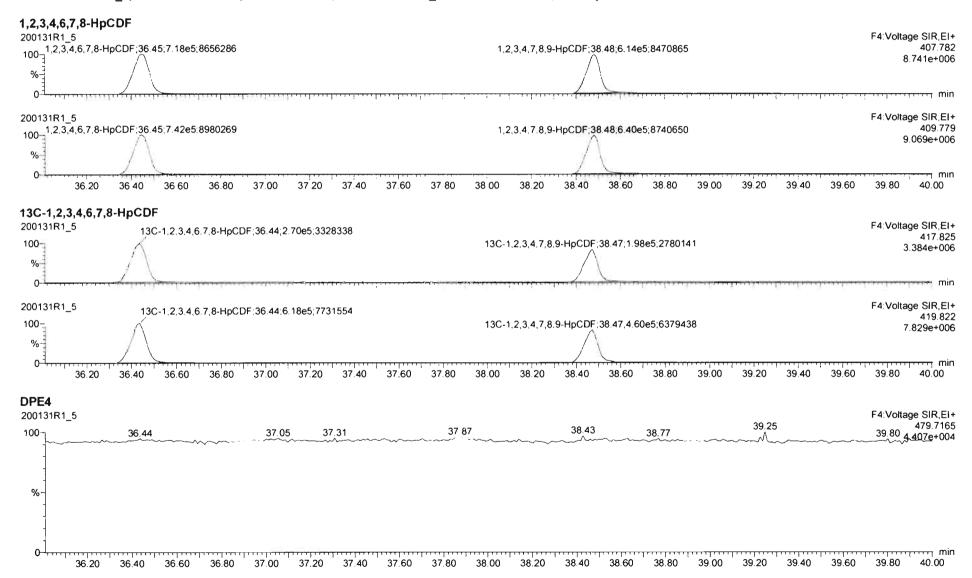
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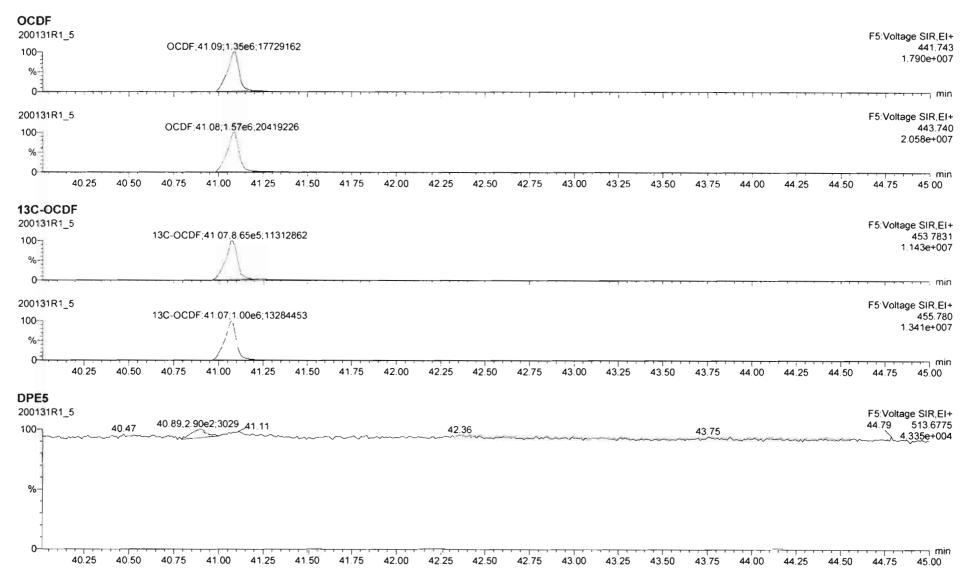
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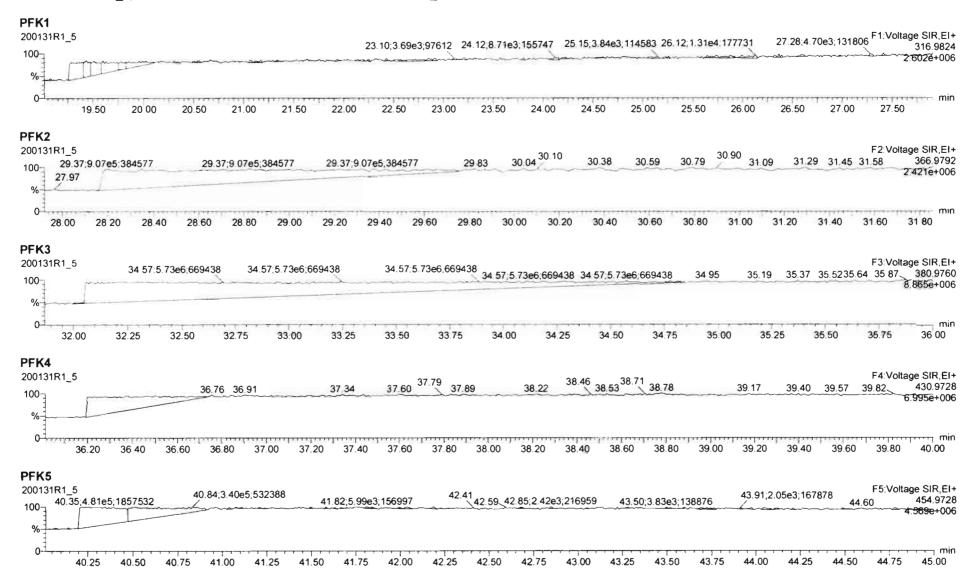
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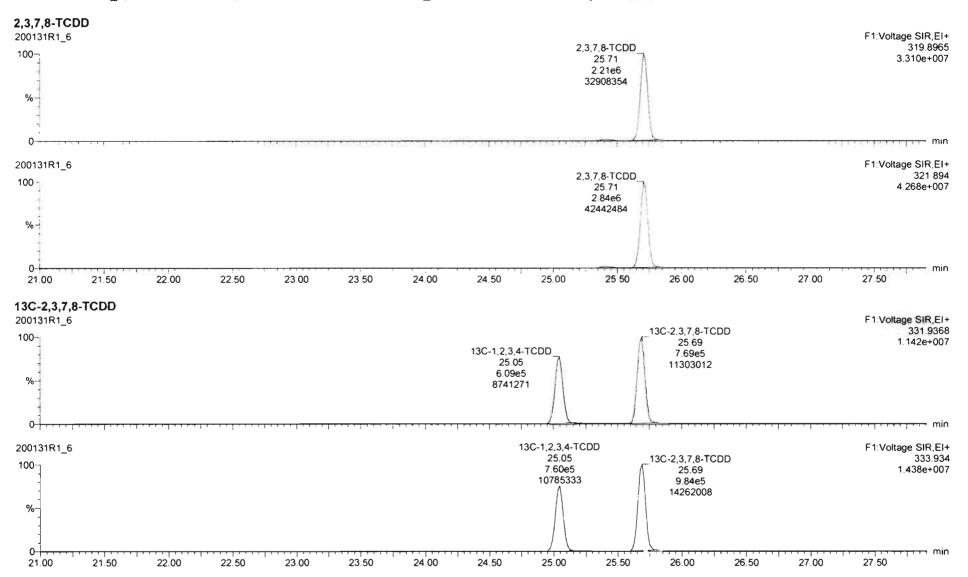
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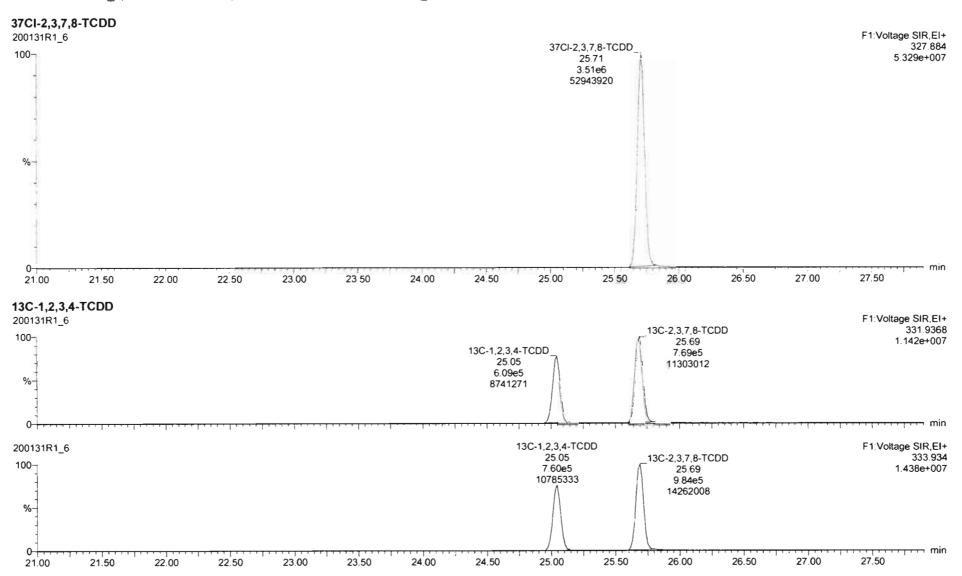
Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time



Vista Analytical Laboratory

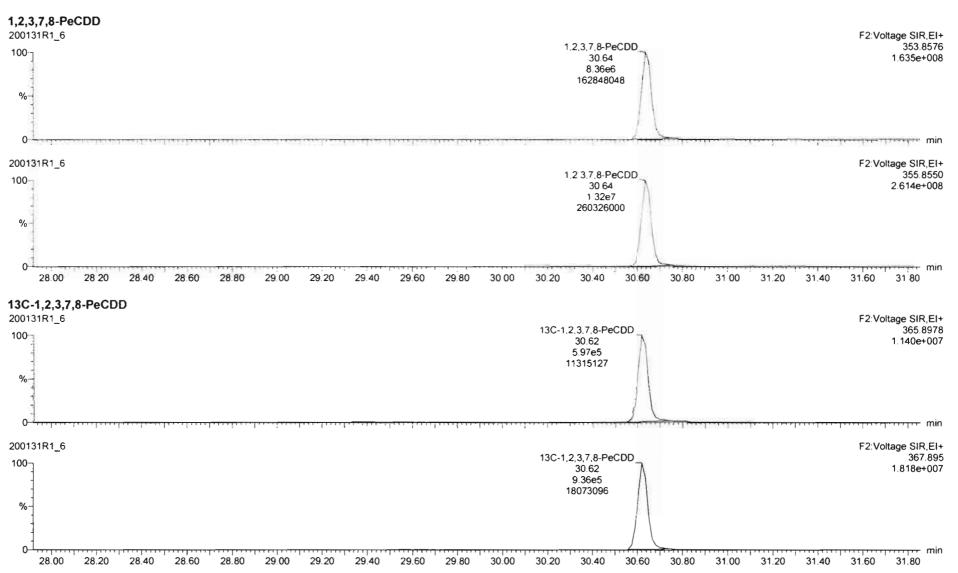
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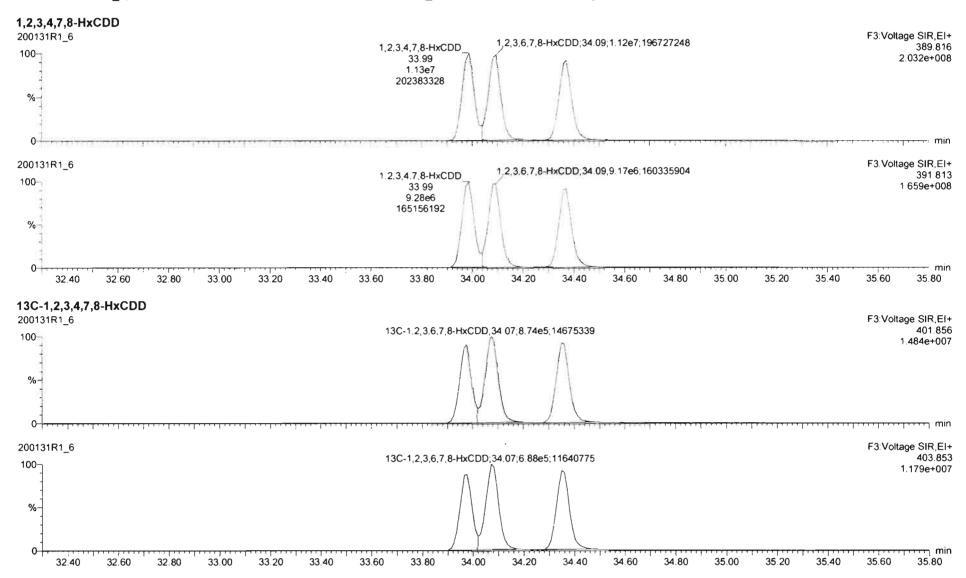
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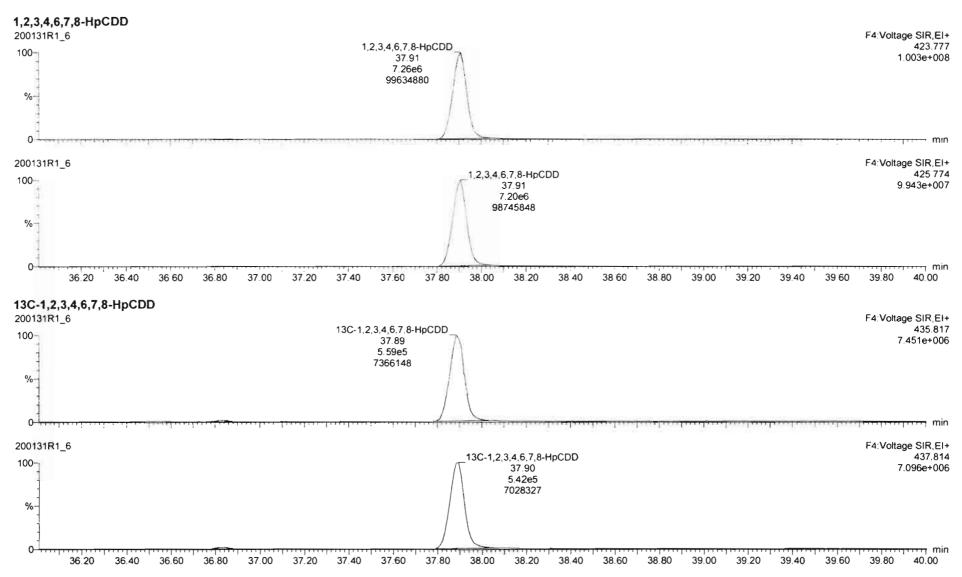
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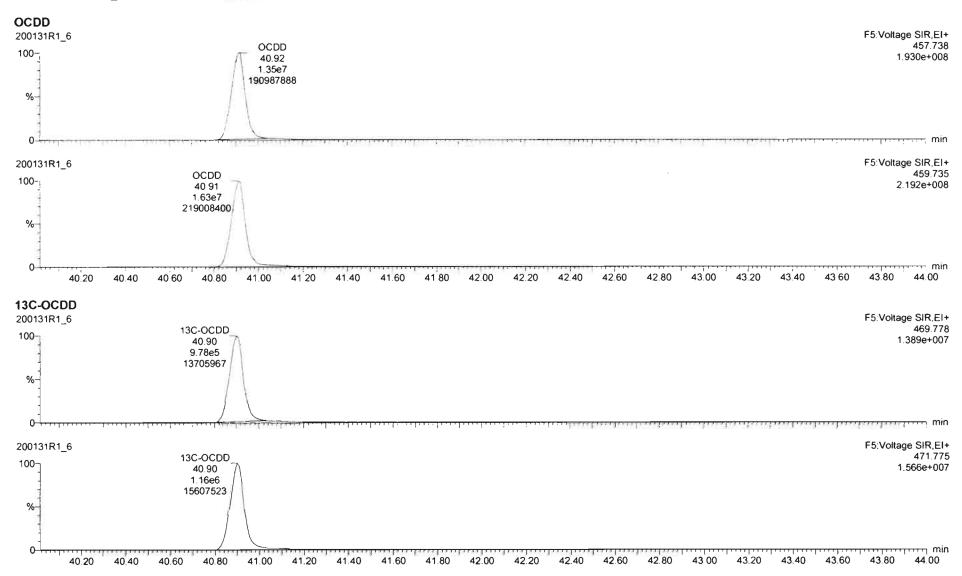


Quantify Sample Report Vista Analytical Laboratory

Dataset:

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Last Altered: Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time



Quantify Sample Report

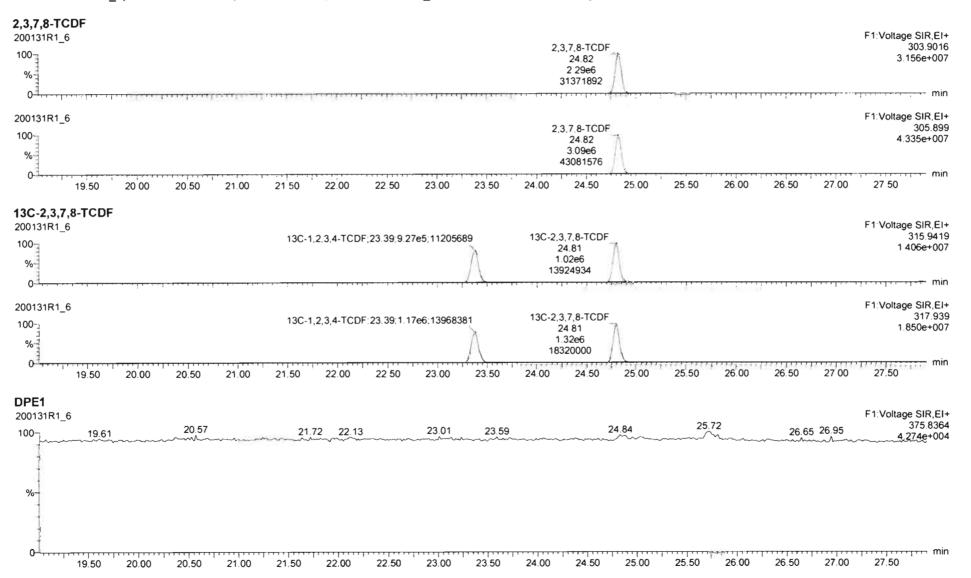
MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

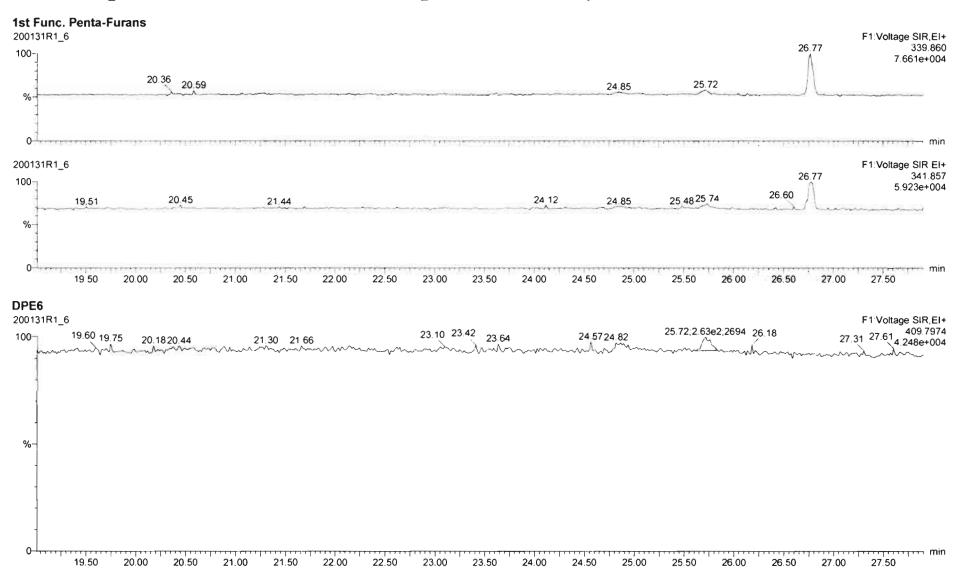
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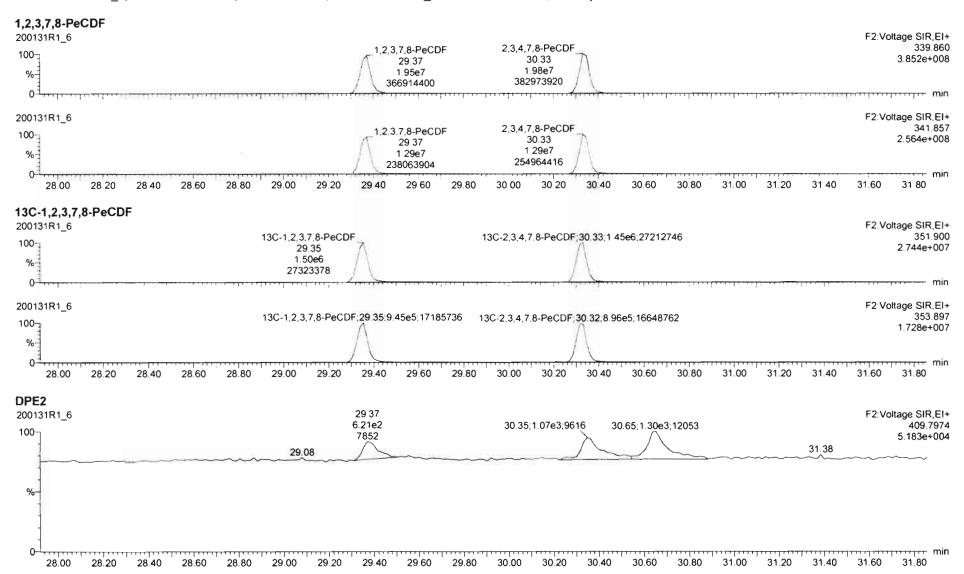
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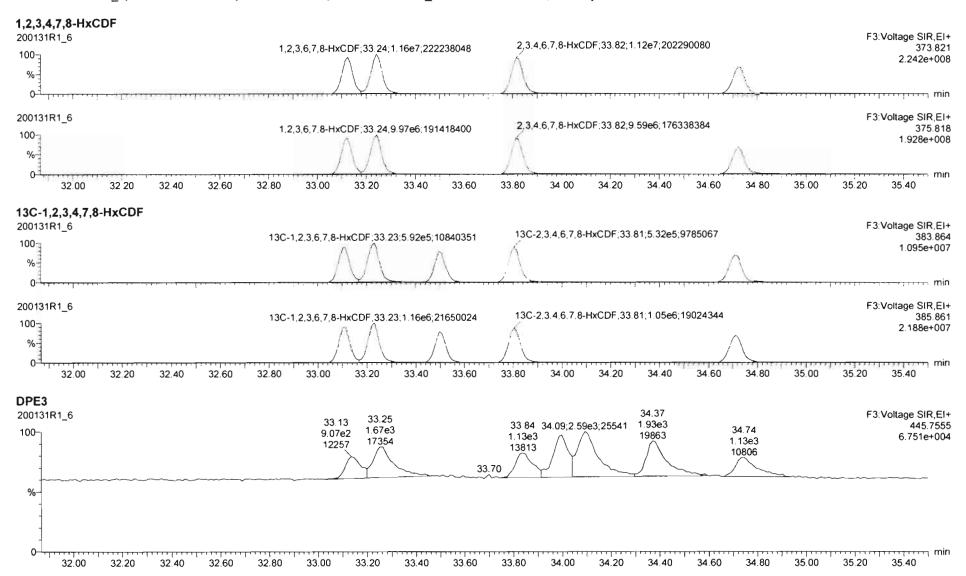
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Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time



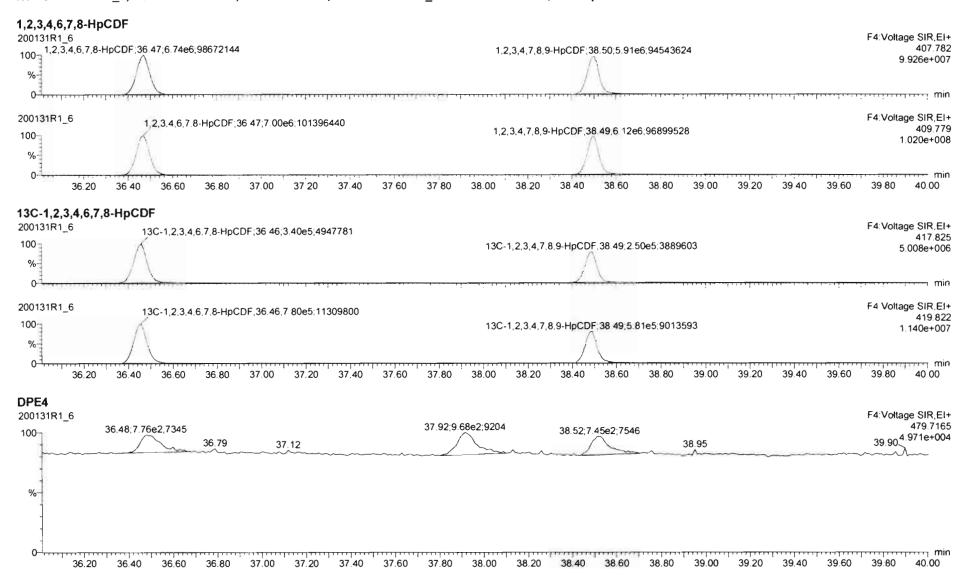
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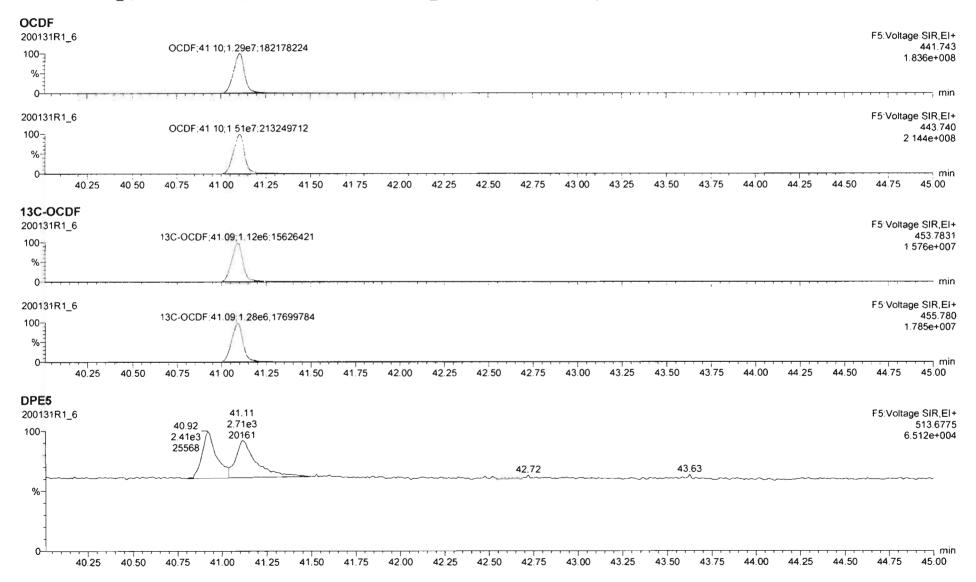
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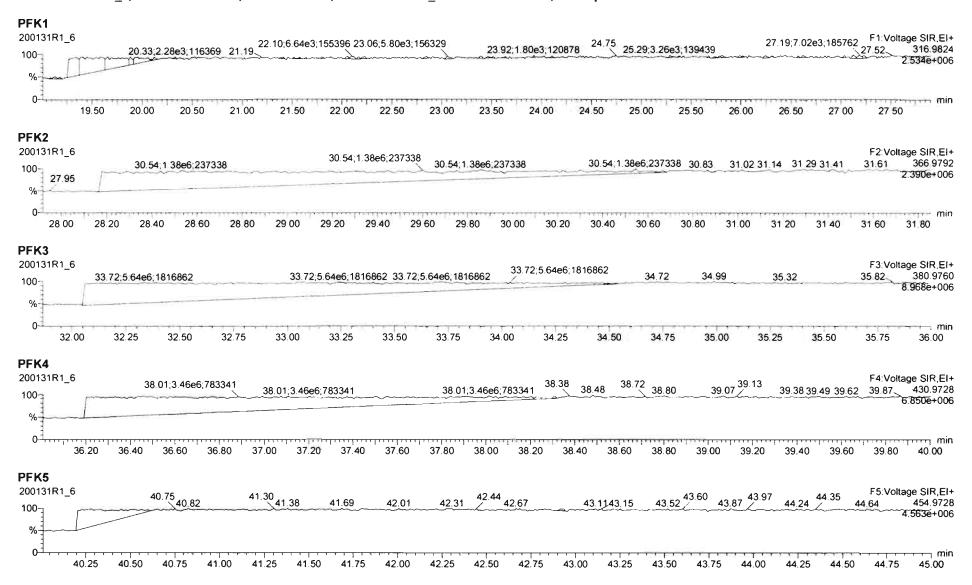
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Sunday, February 02, 2020 11:06:20 AM Pacific Standard Time Sunday, February 02, 2020 11:06:35 AM Pacific Standard Time

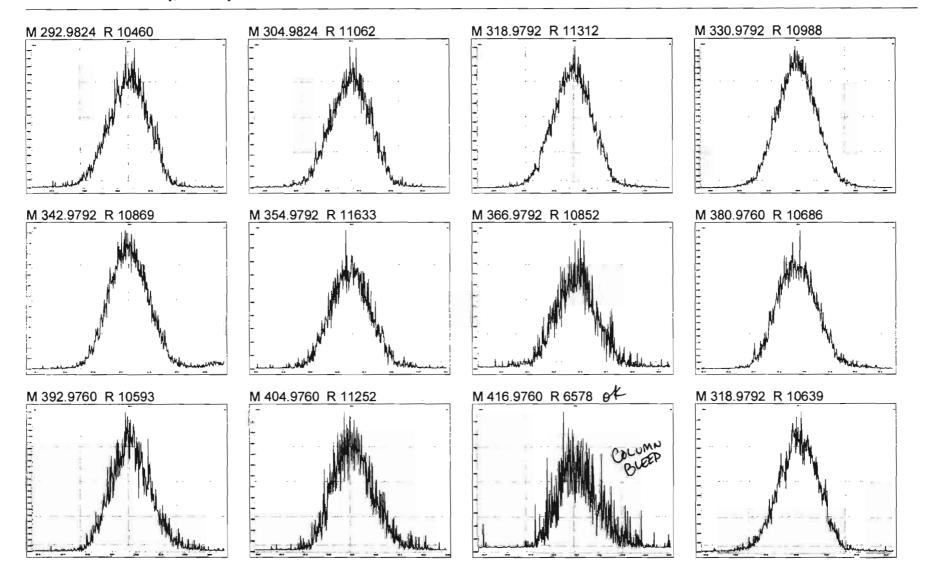


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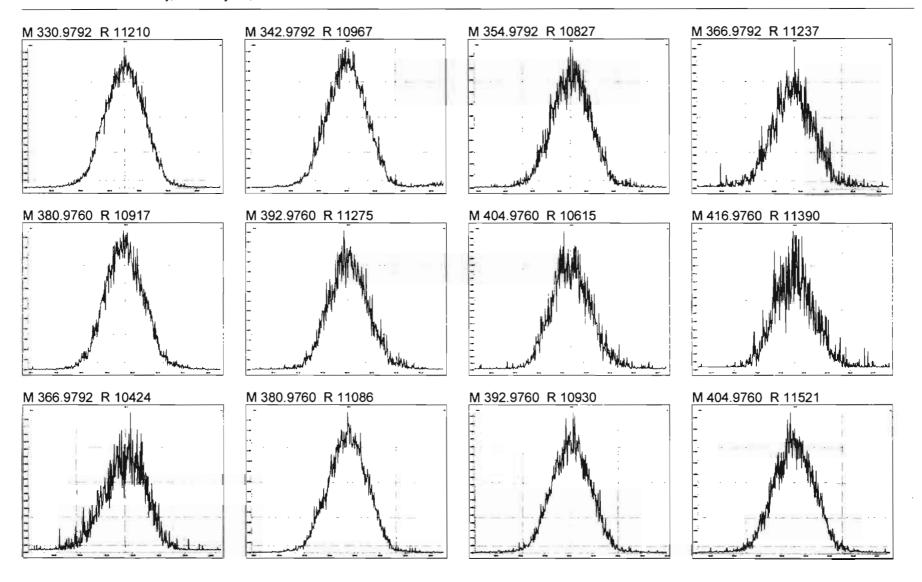


Saturday, February 01, 2020 07:51:26 Pacific Standard Time



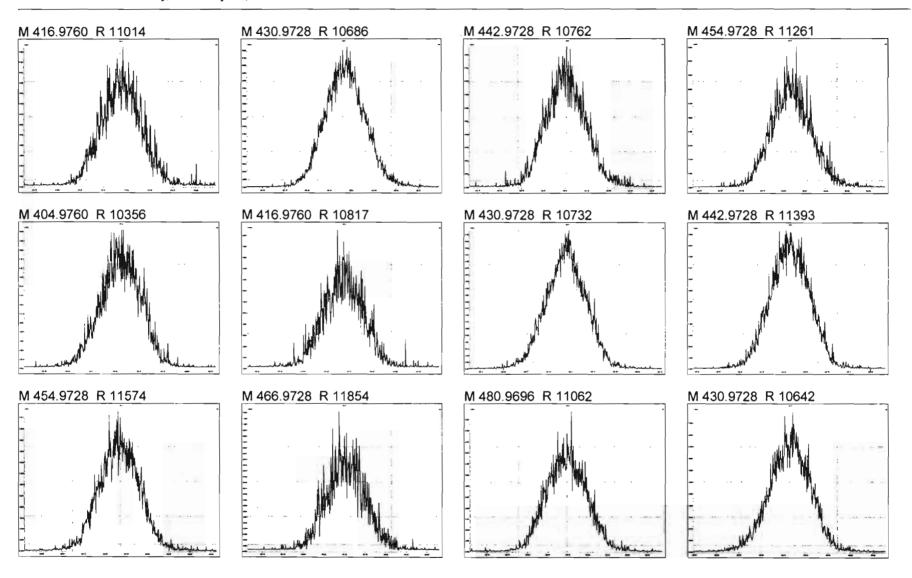
Work Order 1903654 Page 969 of 1184

Saturday, February 01, 2020 07:51:26 Pacific Standard Time



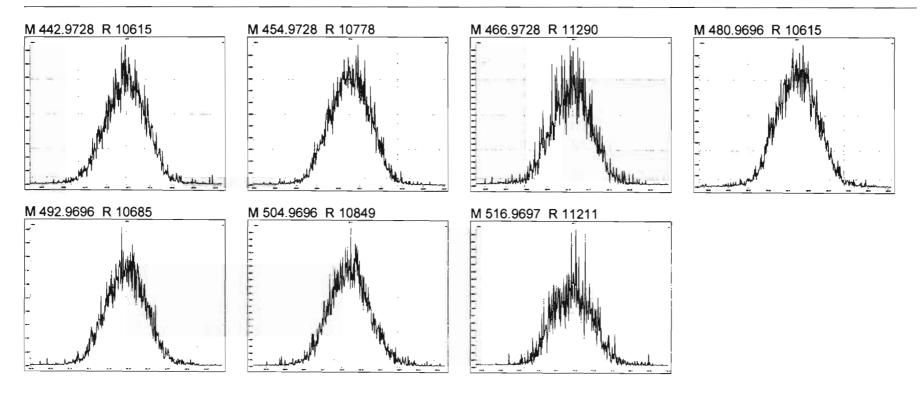
Work Order 1903654 Page 970 of 1184

Saturday, February 01, 2020 07:51:26 Pacific Standard Time



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Saturday, February 01, 2020 07:51:26 Pacific Standard Time



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Page 1 of 2

Dataset: U:\VG12.PRO\Results\200131R1\200131R1-8.qld

Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time Last Altered: Printed:

Sunday, February 02, 2020 11:24:45 AM Pacific Standard Time

GPB 02/02/2020

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-1-31-20.cdb 02 Feb 2020 11:05:29

Name: 200131R1_8, Date: 31-Jan-2020, Time: 22:18:30, ID: SS200131R1_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2.3,7,8-TCDD	1.56e5	0.77	NO	0.988	1.000	25:691	25.69	1.001	1.001	10.621	106	0.0312	10.6
2	2 1.2,3,7,8-PeCDD	6.38e5	0.61	NO	0.972	1.000	30.627	30.62	1.001	1.001	53.028	106	0.0615	53.0
3	3 1.2,3,4,7,8-HxCDD	5.69e5	1.22	NO	1.07	1.000	33.966	33.97	1.000	1.000	53.501	107	0.0848	53.5
4	4 1.2,3,6,7,8-HxCDD	6.05e5	1.23	NO	0.921	1.000	34.062	34.07	1.000	1.000	57.295	115	0.0864	57.3
5	5 1,2,3,7,8,9-HxCDD	5.57e5	1.21	NO	0.918	1.000	34.373	34.35	1.001	1.000	55.837	112	0.0961	55.8
6	6 1,2,3,4,6,7,8-HpCDD	4.04e5	1.06	NO	0.923	1.000	37.886	37.90	1.000	1.001	54.330	109	0.220	54.3
7	7 OCDD	7.74e5	0.92	NO	0.975	1.000	40.878	40.89	1.000	1.000	108.30	108	0.139	108
8	8 2,3,7,8-TCDF	1.73e5	0.74	NO	0.802	1.000	24.802	24.79	1.001	1.001	10.751	108	0.0280	10.8
9	9 1,2,3,7,8-PeCDF	9.70e5	1.53	NO	0.907	1.000	29.345	29.34	1.001	1.001	54.081	108	0.0886	54.1
10	10 2,3,4,7,8-PeCDF	1.11e6	1.53	NO	0.952	1.000	30.331	30.32	1.001	1.001	60.939	122	0.0845	60.9
11	11 1.2.3.4.7,8-HxCDF	5.97e5	1.15	NO	0.862	1.000	33.093	33.10	1.000	1.000	56.486	113	0.117	56.5
12	12 1,2,3.6,7,8-HxCDF	6.65e5	1.16	NO	0.841	1.000	33.220	33.22	1.000	1.000	55.919	112	0.104	55.9
13	13 2,3,4,6,7,8-HxCDF	5.96e5	1.17	NO	0.898	1.000	33.819	33.81	1.001	1.001	53.809	108	0.119	53.8
14	14 1.2.3.7,8,9-HxCDF	4.82e5	1.16	NO	0.858	1.000	34.690	34.71	1.000	1.001	54.259	109	0.175	54.3
15	= 15 1,2,3,4,6,7,8-HpCDF	4.07e5	0.95	NO	0.851	1.000	36.473	36.45	1.001	1.000	56.639	113	0.174	56.6
16	16 1.2,3,4,7,8,9-HpCDF	3.25e5	0.98	NO	0.980	1.000	38.471	38.48	1.000	1.000	55.517	111	0.189	55.5
17	17 OCDF	7.18e5	0.86	NO	0.806	1.000	41.070	41.08	1.000	1.000	105.51	106	0.148	106
18	18 13C-2,3,7,8-TCDD	1.49e6	0.78	NO	1.20	1.000	25.660	25.66	1.026	1.026	92.060	92.1	0.106	
19	19 13C-1,2,3,7,8-PeCDD	1.24e6	0.64	NO	0.967	1.000	30.395	30.61	1.215	1.223	95.149	95.1	0.134	
20	20 13C-1,2,3,4,7,8-HxCDD	9.93e5	1.27	NO	0.874	1.000	33.955	33.96	1.014	1.014	87.678	87.7	0.159	
21	21 13C-1,2,3,6,7,8-HxCDD	1.15e6	1.25	NO	1.05	1.000	34.056	34.06	1.017	1.017	84.618	84.6	0.133	
22	22 13C-1,2,3,7,8,9-HxCDD	1.09e6	1.25	NO	0.974	1.000	34.357	34.34	1.026	1.025	86.118	86.1	0.143	
23	23 13C-1,2,3,4,6,7,8-HpCDD	8.06e5	1.06	NO	0.747	1.000	37.907	37.87	1.132	1.131	83.254	83.3	0.245	-
24	24 13C-OCDD	1.47e6	0.89	NO	0.707	1.000	40.787	40.88	1.218	1.221	160.15	80.1	0.173	
25	25 13C-2,3,7,8-TCDF	2.01e6	0.78	NO	1.07	1.000	24.842	24.78	0.993	0.990	91.210	91.2	0.143	
26	26 13C-1,2,3,7,8-PeCDF	1.98e6	1.58	NO	1.00	1.000	29.170	29.32	1.166	1.172	95.322	95.3	0.190	+
27	27 13C-2,3,4,7,8-PeCDF	1.91e6	1.60	NO	0.962	1.000	30.120	30.30	1.204	1.211	96.164	96.2	0.198	
28	28 13C-1,2,3,4,7,8-HxCDF	1.23e6	0.52	NO	1.05	1.000	33.085	33.09	0.988	0.988	90.119	90.1	0.194	1
29	29 13C-1,2,3,6,7,8-HxCDF	1.41e6	0.50	NO	1.19	1.000	33.185	33.21	0.991	0.992	91.687	91.7	0.171	1
30	30 13C-2,3,4,6,7,8-HxCDF	1.23e6	0.51	NO	1.07	1.000	33.791	33.78	1.009	1.009	89.274	89.3	0.190	
31	31 13C-1,2,3,7,8,9-HxCDF	1.04e6	0.51	NO	0.922	1.000	34.692	34.69	1.036	1.036	86.700	86.7	0.220	

Work Order 1903654 Page 973 of 1184

Page 2 of 2

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\200131R1\200131R1-8.qld

Last Altered:

Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time

Printed: Sunday, February 02, 2020 11:24:45 AM Pacific Standard Time

Name: 200131R1_8, Date: 31-Jan-2020, Time: 22:18:30, ID: SS200131R1_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

72 750	# Name	Resp	RA	n/y	RRF	wt/voi	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL EMI	PC
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33	33 13C-1,2,3,4,7,8,9-HpCDF	5.98e5	0.43	NO	0.552	1.000	38.443	38.47	1.148	1.149	83.515	83.5	0.322	
34	34 13C-OCDF	1.69e6	0.90	NO	0.789	1.000	41.021	41.07	1.225	1.226	165.15	82.6	0.137	
35	35 37CI-2,3,7,8-TCDD	1.57e5			1.18	1.000	25.692	25.69	1.027	1.027	9.9110	99.1	0.0232	
36	36 13C-1,2,3,4-TCDD	1.35e6	0.81	NO	1.00	1.000	25.080	25.02	1.000	1.000	100.00	100	0.128	
37	37 13C-1,2,3,4-TCDF	2.07e6	0.79	NO	1.00	1.000	23.420	23.36	1.000	1.000	100.00	100	0.152	
38	38 13C-1,2,3,4,6,9-HxCDF	1.30e6	0.51	NO	1.00	1.000	33.520	33.49	1.000	1.000	100.00	100	0.203	

Work Order 1903654 Page 974 of 1184

Page 1 of 13

Dataset:

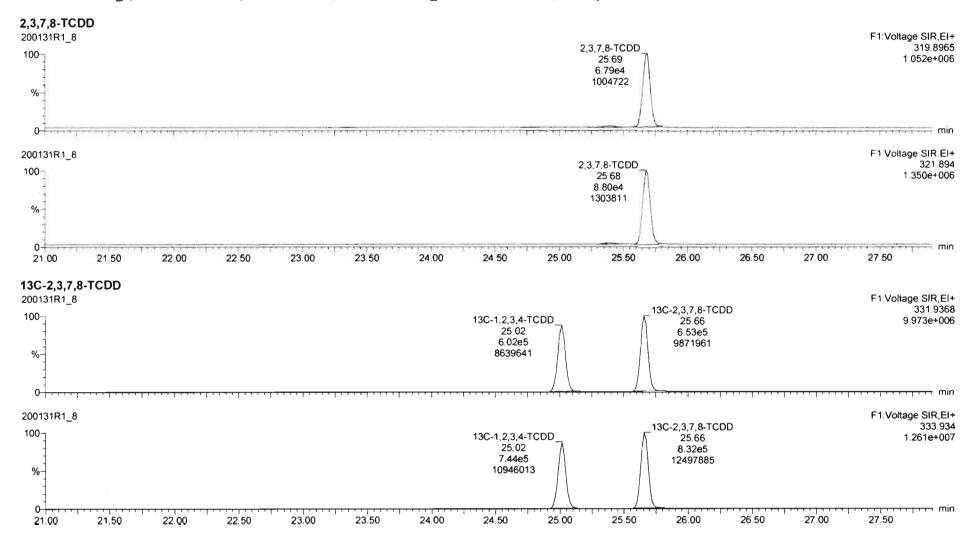
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Vista Analytical Laboratory

Last Altered: Printed: Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time Sunday, February 02, 2020 11:23:53 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-1-28-20.mdb 28 Jan 2020 16:09:23

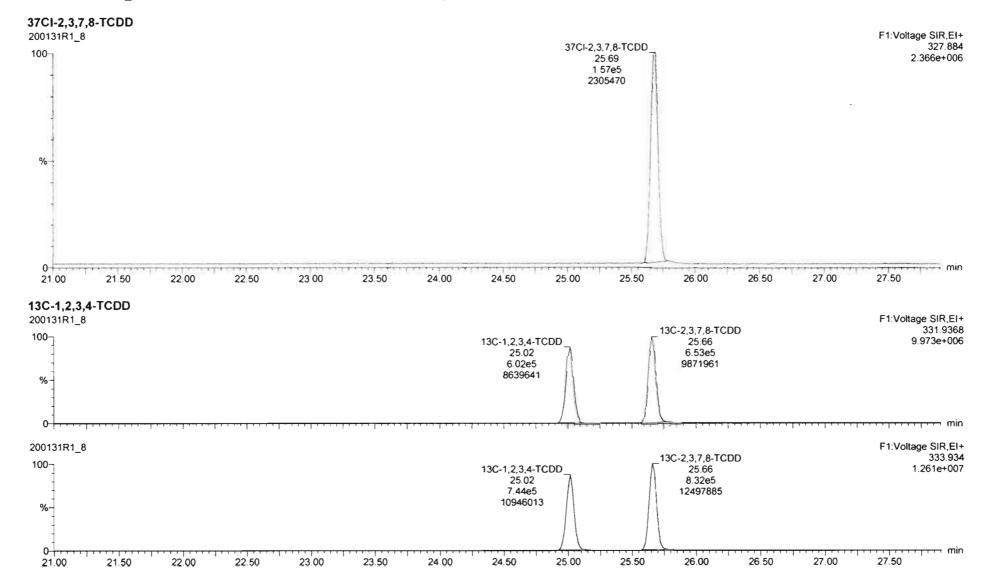
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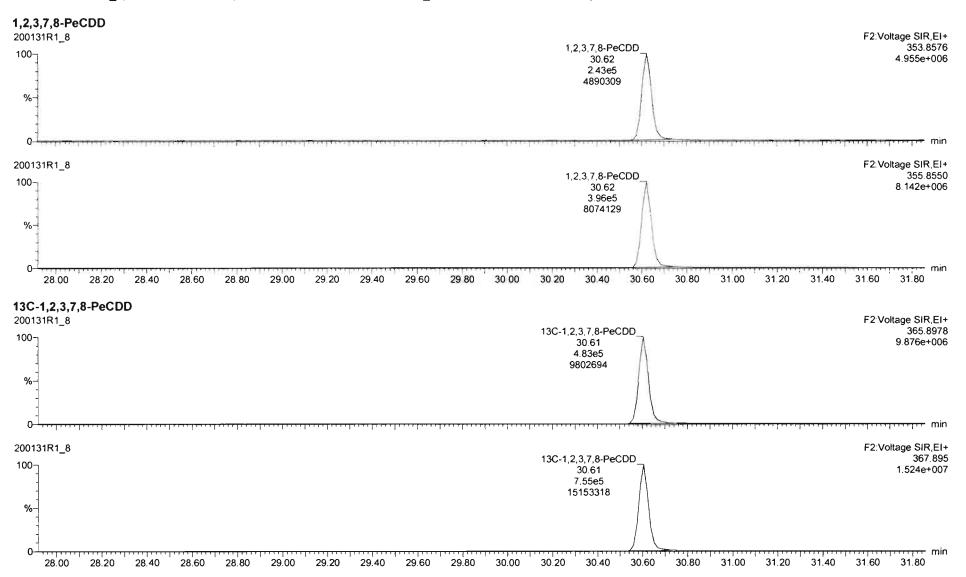
Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time Sunday, February 02, 2020 11:23:53 AM Pacific Standard Time



Untitled

Last Altered: Printed:

Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time Sunday, February 02, 2020 11:23:53 AM Pacific Standard Time



Quantify Sample Report

MassLynx 4.1 SCN815

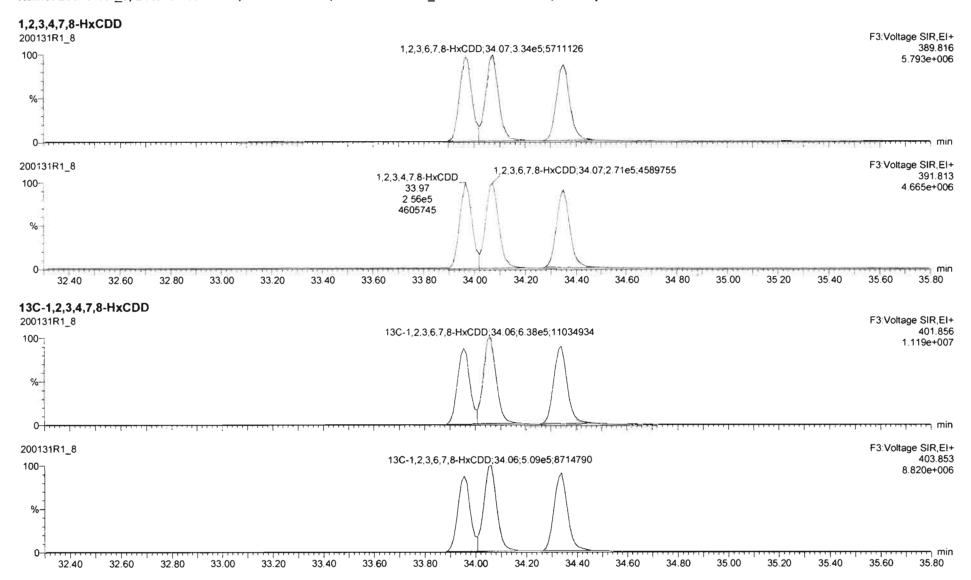
Vista Analytical Laboratory

Dataset:

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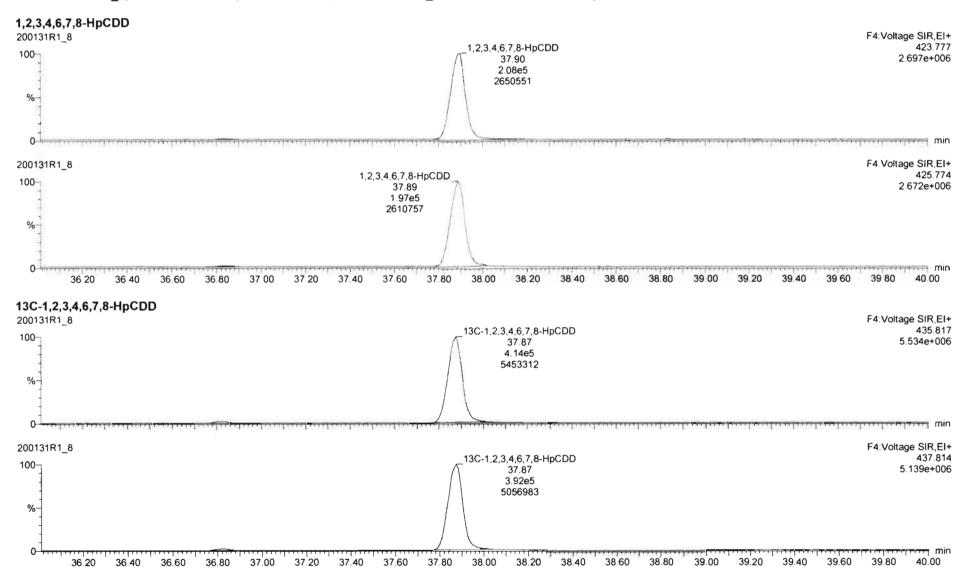
Page 5 of 13

Dataset:

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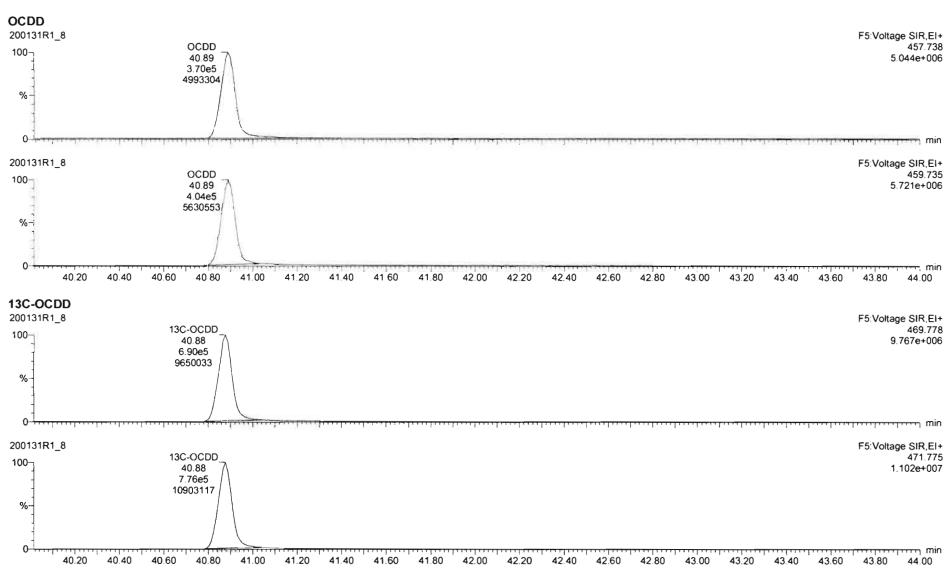
Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time Sunday, February 02, 2020 11:23:53 AM Pacific Standard Time



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Last Altered: Printed:

Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time Sunday, February 02, 2020 11:23:53 AM Pacific Standard Time



Quantify Sample Report

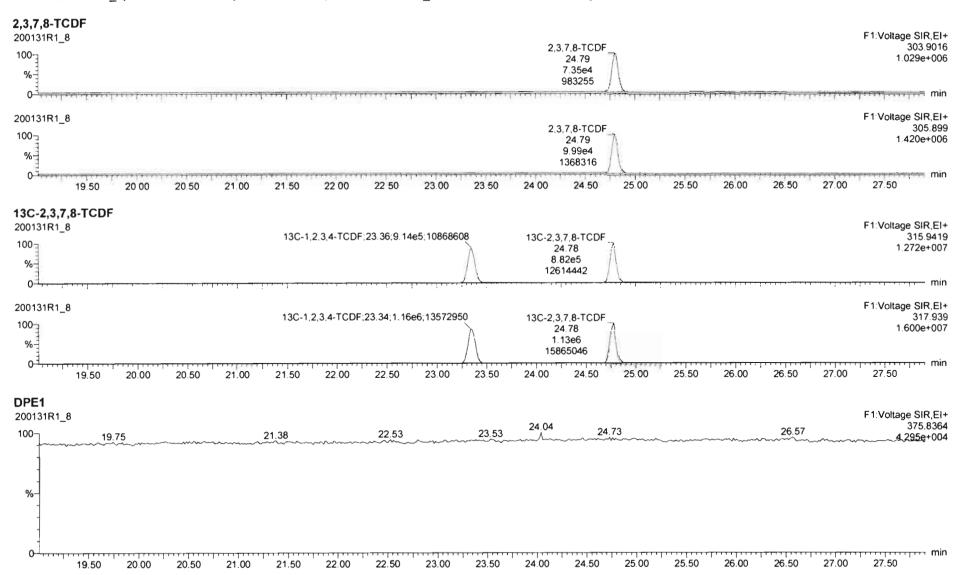
MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

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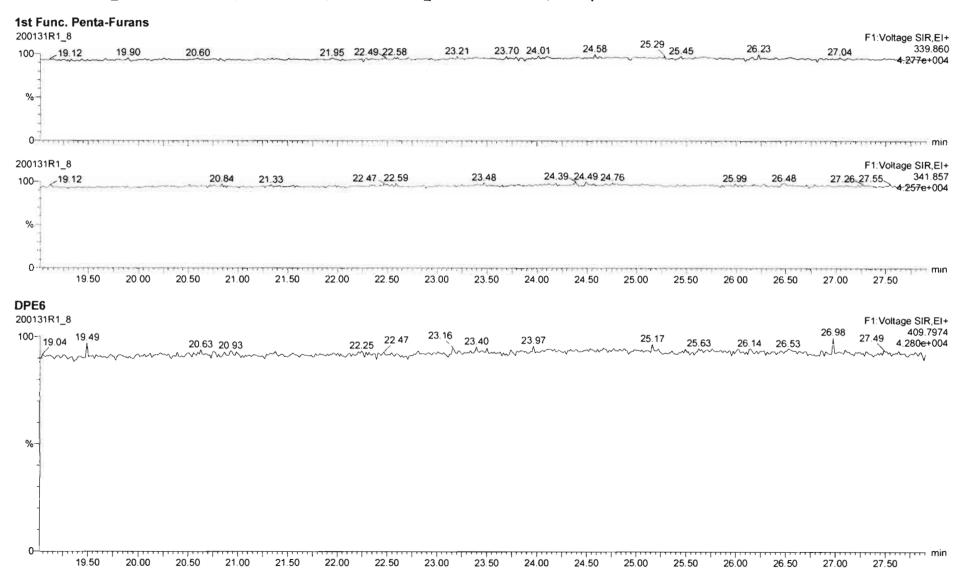
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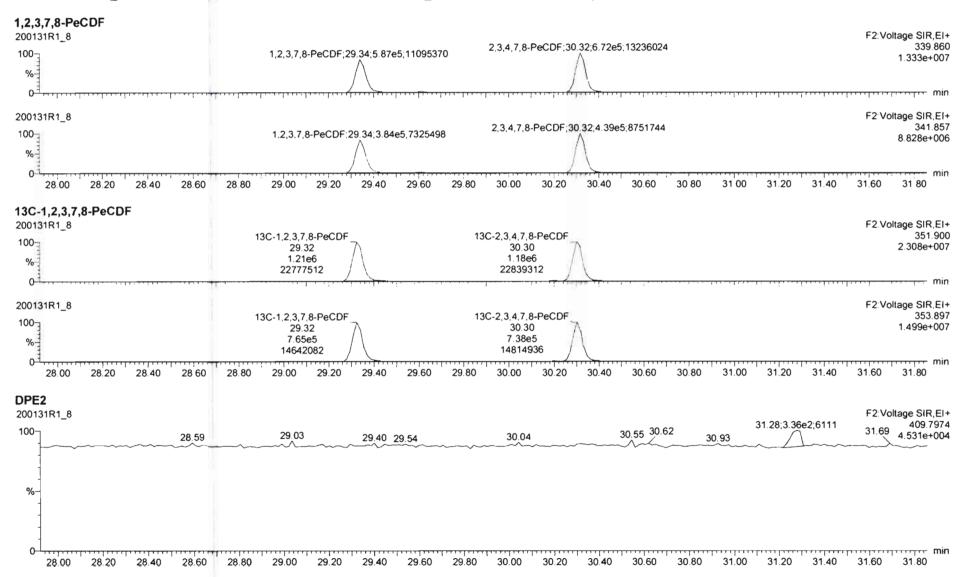


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Dataset:

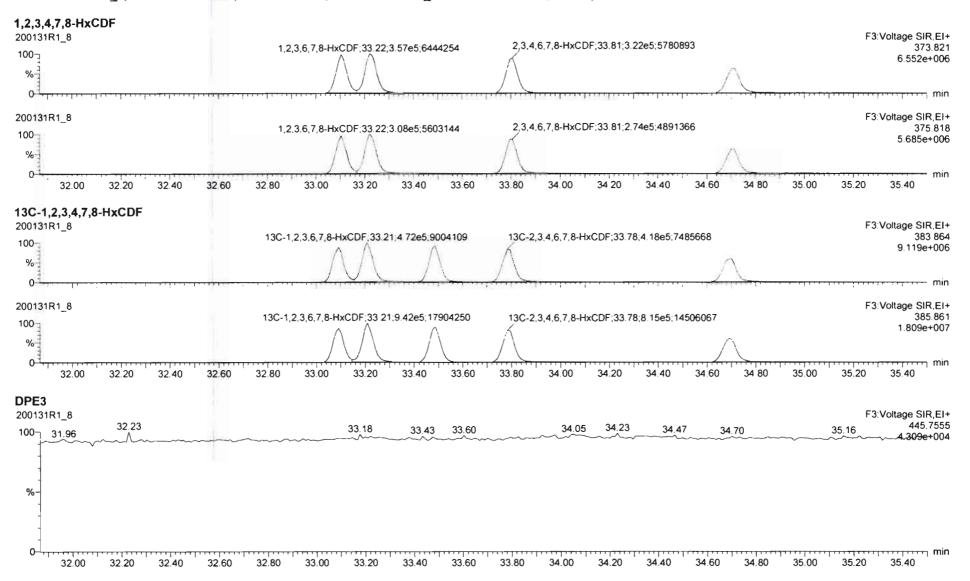
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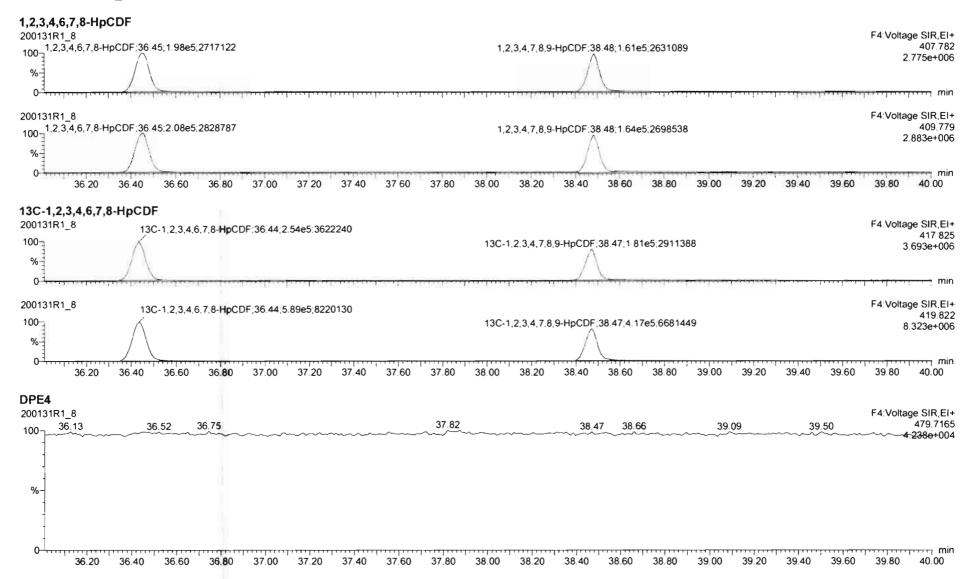
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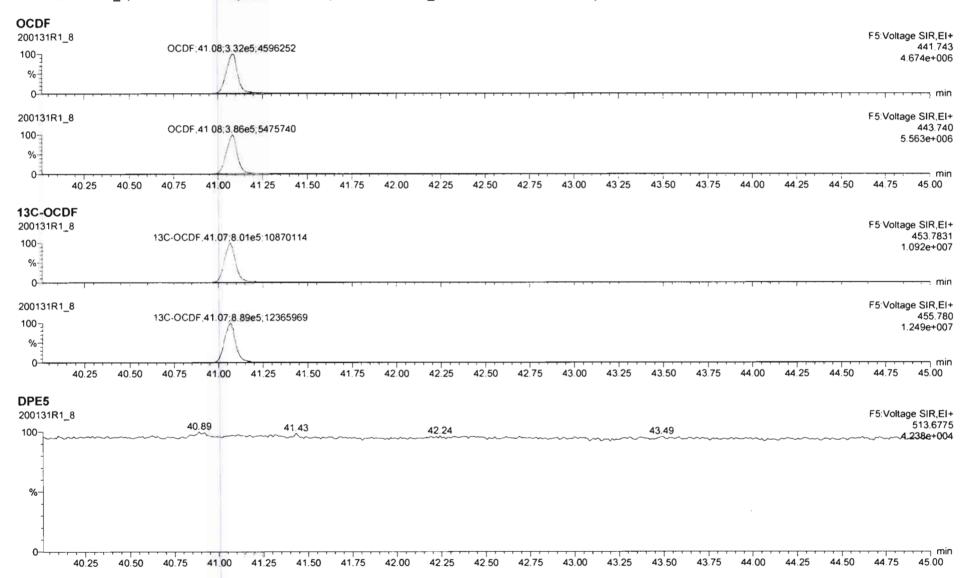
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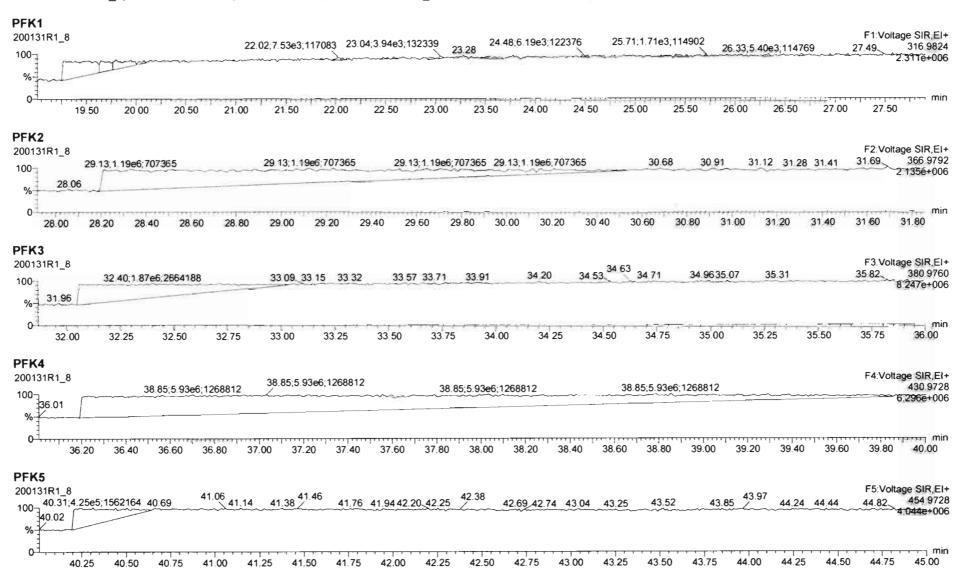
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Last Altered: Printed: Sunday, February 02, 2020 11:21:34 AM Pacific Standard Time Sunday, February 02, 2020 11:23:53 AM Pacific Standard Time



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Dataset:

U:\VG12.PRO\Results\200306R2\200306R2-CRV.gld

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C7 03/09/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 11:03:08

Calibration: U:\VG12.PRO\CurveDB\db5 1613vq12-3-6-20.cdb 09 Mar 2020 08:18:02

Compound name: 2,3,7,8-TCDD Response Factor: 0.983462

RRF SD: 0.0620764, Relative SD: 6.31202

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

form in	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	0.250	0.88	NO	25.83	1.001	2.55e3	1.02e6	0.255	1.8	1.00	MM
2	200306R2_2	0.500	0.79	NO	25.80	1.001	5.56e3	1.04e6	0.545	9.0	1.07	bb
3	200306R2_3	2.00	0.77	NO	25.81	1.001	2.04e4	9.83e5	2.11	5.3	1.04	bb
4	200306R2_4	10.0	0.80	NO	25.81	1.001	1.07e5	1.15e6	9.48	-5.2	0.933	db
5	200306R2_5	40.0	0.77	NO	25.80	1.001	4.79e5	1.30e6	37.6	-5.9	0.925	bb
6	200306R2_6	300	0.79	NO	25.80	1.001	3.75e6	1.34e6	285	-5.0	0.934	bb

Compound name: 1,2,3,7,8-PeCDD

Response Factor: 0.921241

RRF SD: 0.0620739, Relative SD: 6.73807

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: RF

30 30	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	0.68	NO	31.00	1.000	7.57e3	7.13e5	1.15	-7.8	0.849	MM
2	200306R2_2	2.50	0.65	NO	30.97	1.000	1.74e4	6.98e5	2.70	8.2	0.996	bb
3	200306R2_3	10.0	0.68	NO	30.99	1.000	6.63e4	6.63e5	10.8	8.5	0.999	bb
4	200306R2_4	50.0	0.63	NO	30.99	1.000	3.98e5	9.00e5	48.0	-4.0	0.884	bb
5	200306R2_5	200	0.63	NO	30.99	1.000	1.71e6	9.49e5	195	-2.4	0.899	bb
6	200306R2_6	1500	0.63	NO	30.99	1.000	1.46e7	1.08e6	1460	-2.3	0.900	bb

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Dataset:

U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

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Compound name: 1,2,3,4,7,8-HxCDD

Response Factor: 1.13254

RRF SD: 0.050207, Relative SD: 4.43315

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.29	NO	34.40	1.001	7.33e3	5.37e5	1.21	-3.6	1.09	bd
2	200306R2_2	2.50	1.25	NO	34.37	1.001	1.58e4	5.23e5	2.66	6.4	1.21	bd
3	200306R2_3	10.0	1.25	NO	34.37	1.000	5.85e4	4.95e5	10.4	4.4	1.18	bd
4	200306R2_4	50.0	1.24	NO	34.38	1.001	3.69e5	6.79e5	48.0	-4.0	1 09	bd
5	200306R2_5	200	1.24	NO	34.37	1.000	1.50e6	6.81e5	194	-3.0	1.10	bd
6	200306R2_6	1500	1.24	NO	34.38	1.000	1.42e7	8.39e5	1500	-0.3	1.13	bd

Compound name: 1,2,3,6,7,8-HxCDD

Response Factor: 0.984449

RRF SD: 0.0570908, Relative SD: 5.79927

Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)

Curve type: RF

C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.21	NO	34.49	1.000	7.49e3	6.23e5	1.22	-2.3	0.961	MM
2	200306R2_2	2.50	1.23	NO	34.47	1.000	1.71e4	6.45e5	2.69	7.8	1.06	db
3	200306R2_3	10.0	1.24	NO	34.48	1.000	6.35e4	6.06e5	10.6	6.4	1.05	db
4	200306R2_4	50.0	1.26	NO	34.48	1.000	3.94e5	8.29e5	48.3	-3.4	0.951	d b
5	200306R2_5	200	1.25	NO	34.47	1.000	1.68e6	8.67e5	197	-1.6	0.969	db
6	200306R2_6	1500	1.24	NO	34.49	1.001	1.45e7	1.05e6	1400	-6.8	0.917	d b

Compound name: 1,2,3,7,8,9-HxCDD

Response Factor: 0.967395

RRF SD: 0.0672904, Relative SD: 6.95583

Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)

Curve type: RF

SHARK	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.19	NO	34.76	1.000	6.08e3	5.57e5	1.13	-9.9	0.872	MM
2	200306R2_2	2.50	1.24	NO	34.74	1.001	1.51e4	5.80e5	2.70	7.9	1.04	bb

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Compound name: 1,2,3,7,8,9-HxCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	10.0	1.23	NO	34.74	1.000	5.71e4	5.46e5	10.8	8.1	1.05	bb
4	200306R2_4	50.0	1.23	NO	34.74	1.000	3.51e5	7.47e5	48.6	-2.9	0.940	bb
5	200306R2_5	200	1.25	NO	34.74	1.000	1.47e6	7.83e5	194	-2.8	0.940	bb
6	200306R2_6	1500	1.23	NO	34.75	1.000	1.34e7	9.31e5	1490	-0.5	0.963	bb

Compound name: 1,2,3,4,6,7,8-HpCDD

Response Factor: 1.00606

RRF SD: 0.0598777, Relative SD: 5.95172

Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)

Curve type: RF

F32 F1	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.04	NO	38.23	1.000	4.50e3	3.74e5	1.19	-4.5	0.960	MM
2	200306R2_2	2.50	1.03	NO	38.17	1.000	1.17e4	4.34e5	2.69	7.6	1.08	bb
3	200306R2_3	10.0	1.02	NO	38.18	1.000	4.15e4	3.84e5	10.7	7.4	1.08	bb
4	200306R2_4	50.0	1.03	NO	38.21	1.000	2.63e5	5.52e5	47.4	-5.1	0.954	bb
5	200306R2_5	200	1.04	NO	38.21	1.001	1.14e6	5.89e5	192	-3.9	0.967	bb
6	200306R2_6	1500	1.03	NO	38.22	1.001	9.92e6	6.67e5	1480	-1.4	0.992	bb

Compound name: OCDD Response Factor: 1.05145

RRF SD: 0.114587, Relative SD: 10.898

Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)

Curve type: RF

74 13	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	2.50	0.84	NO	41.25	1.000	1.06e4	7.05e5	2.86	14.2	1.20	MM
2	200306R2_2	5.00	0.98	NO	41.22	1.000	2.24e4	7.62e5	5.60	12.0	1.18	MM
3	200306R2_3	20.0	0.87	NO	41.23	1.000	7.58e4	7.16e5	20.1	0.7	1.06	bb
4	200306R2_4	100	0.90	NO	41.23	1.000	4.62e5	9.75e5	90.2	-9.8	0.948	bb
5	200306R2_5	400	0.89	NO	41.22	1.000	2.22e6	1.17e6	360	-10.0	0.946	bb
6	200306R2_6	3000	0.89	NO	41.24	1.000	2.08e7	1.42e6	2790	-7.1	0.977	MM

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Compound name: 2,3,7,8-TCDF Response Factor: 0.915401

RRF SD: 0.0583768, Relative SD: 6.37719

Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)

Curve type: RF

d jos	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	0.250	0.84	NO	24.87	1.001	3.09e3	1.43e6	0.235	-5.9	0.861	MM
2	200306R2_2	0.500	0.78	NO	24.82	1.001	7.23e3	1.45e6	0.546	9.2	1.00	bb
3	200306R2_3	2.00	0.78	NO	24.82	1.001	2.69e4	1.38e6	2.14	6.8	0.978	bb
4	200306R2_4	10.0	0.77	NO	24.84	1.001	1.28e5	1.46e6	9.56	-4.4	0.875	bb
5	200306R2_5	40.0	0.77	NO	24.82	1.001	6.19e5	1.74e6	38.8	-3.1	0.887	bb
6	200306R2_6	300	0.77	NO	24.82	1.001	4.83e6	1.81e6	292	-2.7	0.891	bb

Compound name: 1,2,3,7,8-PeCDF

Response Factor: 0.959427

RRF SD: 0.0433152, Relative SD: 4.51469

Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)

Curve type: RF

11	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.49	NO	29.68	1.000	1.28e4	1.13e6	1.18	-5.5	0.906	MM
2	200306R2_2	2.50	1.64	NO	29.63	1.000	2.70e4	1.07e6	2.63	5.3	1.01	bb
3	200306R2_3	10.0	1.54	NO	29.65	1.000	1.01 e 5	9.93e5	10.6	5.7	1.01	MM
4	200306R2_4	50.0	1.55	NO	29.66	1.001	6.19e5	1.30e6	49.4	-1.1	0.948	bb
5	200306R2_5	200	1.56	NO	29.65	1.000	2.60e6	1.38e6	196	-1.9	0.941	bb
6	200306R2_6	1500	1.53	NO	29.66	1.000	2.21e7	1.58e6	1460	-2.4	0.936	bb

Compound name: 2,3,4,7,8-PeCDF

Response Factor: 1.00349

RRF SD: 0.0546018, Relative SD: 5.44122

Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)

Curve type: RF

1100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.61	NO	30.70	1.000	1.23e4	1.05e6	1.17	-6.4	0.940	MM
2	200306R2_2	2.50	1.54	NO	30.65	1.000	2.75e4	1.02e6	2.70	8.1	1.08	bb

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Compound name: 2,3,4,7,8-PeCDF

12.3	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	10.0	1.56	NO	30.67	1.000	1.02e5	9.68e5	10.5	5.1	1.05	bb
4	200306R2_4	50.0	1.58	NO	30.67	1.000	6.26e5	1.27e6	49.3	-1.4	0.990	bb
5	200306R2_5	200	1.54	NO	30.67	1.000	2.65e6	1.36e6	195	-2.6	0.978	bb
6	200306R2_6	1500	1.53	NO	30.68	1.000	2.24e7	1.53 e 6	1460	-2.8	0.975	bb

Compound name: 1,2,3,4,7,8-HxCDF

Response Factor: 1.03807

RRF SD: 0.0538106, Relative SD: 5.18374

Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)

Curve type: RF

11-11-11	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.12	NO	33.54	1.001	8.84e3	7.10e5	1.20	-4.0	0.996	bd
2	200306R2_2	2.50	1.19	NO	33.51	1.000	1.92e4	6.91 e 5	2.68	7.2	1.11	bd
3	200306R2_3	10.0	1.26	NO	33.52	1.000	7.18e4	6.52e5	10.6	6.1	1.10	bd
4	200306R2_4	50.0	1.23	NO	33.52	1.000	4.56e5	8.98e5	48.9	-2.2	1.02	dd
5	200306R2_5	200	1.22	NO	33.52	1.001	1.87e6	9.40e5	192	-4.1	0.996	bd
6	200306R2_6	1500	1.22	NO	33.53	1.001	1.65e7	1.09e6	1460	-2.9	1.01	bd

Compound name: 1,2,3,6,7,8-HxCDF

Response Factor: 1.0126

RRF SD: 0.0619783, Relative SD: 6.12071

Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)

Curve type: RF

9,64	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.20	NO	33.66	1.000	9.19e3	7.80e5	1.16	-6.9	0.943	db
2	200306R2_2	2.50	1.27	NO	33.63	1.000	2.08e4	7.71e5	2.66	6.4	1.08	db
3	200306R2_3	10.0	1.18	NO	33.64	1.000	7.95e4	7.22e5	10.9	8.7	1.10	db
4	200306R2_4	50.0	1.22	NO	33.64	1.000	4.93e5	1.01e6	48.1	-3.7	0.975	db
5	200306R2_5	200	1.22	NO	33.64	1.001	2.10e6	1.05 e 6	196	-1.8	0.994	db
6	200306R2_6	1500	1.22	NO	33.65	1.000	1.83e7	1.24e6	1460	-2.7	0.986	db

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Compound name: 2,3,4,6,7,8-HxCDF

Response Factor: 1.092

RRF SD: 0.0522909, Relative SD: 4.78856

Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)

Curve type: RF

Dataset:

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.20	NO	34.23	1.001	9.49e3	7.13e5	1.22	-2.5	1.07	bb
2	200306R2_2	2.50	1.18	NO	34.19	1.000	2.08e4	7.13e5	2.68	7.1	1.17	bb
3	200306R2_3	10.0	1.21	NO	34.21	1.001	7.81e4	6.81e5	10.5	5.1	1.15	bb
4	200306R2_4	50.0	1.21	NO	34.21	1.001	4.95e5	9.38e5	48.3	-3.4	1.05	bb
5	200306R2_5	200	1.22	NO	34.20	1.000	2.06e6	9.84e5	192	-3.9	1.05	bb
6	200306R2_6	1500	1.22	NO	34.21	1.000	1.82e7	1.14e6	1460	-2.4	1.07	bb

Compound name: 1,2,3,7,8,9-HxCDF

Response Factor: 1.02678

RRF SD: 0.0447492, Relative SD: 4.35823

Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)

Curve type: RF

43.5	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.27	NO	35.11	1.001	7.40e3	5.96e5	1.21	-3.3	0.993	bb
2	200306R2_2	2.50	1.24	NO	35.07	1.000	1.61e4	6.11e5	2.57	2.9	1.06	bb
3	200306R2_3	10.0	1.24	NO	35.08	1.000	6.28e4	5.68e5	10.8	7.6	1.10	bd
4	200306R2_4	50.0	1.25	NO	35.08	1.000	3.95e5	7.83e5	49.1	-1.8	1.01	MM
5	200306R2_5	200	1.23	NO	35.08	1.001	1.63e6	8.17e5	195	-2.7	0.999	bb
6	200306R2_6	1500	1.23	NO	35.10	1.000	1.48e7	9.86e5	1460	-2.7	0.999	bb

Compound name: 1,2,3,4,6,7,8-HpCDF

Response Factor: 1.04827

RRF SD: 0.0494086, Relative SD: 4.71334

Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)

Curve type: RF

2001	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	1.07	NO	36.81	1.000	6.78e3	5.13e5	1.26	0.8	1.06	bb
2	200306R2_2	2.50	0.98	NO	36.78	1.000	1.55e4	5.54e5	2.67	6.7	1.12	bb

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Dataset:

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Last Altered: Printed:

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Compound name: 1,2,3,4,6,7,8-HpCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	10.0	1.01	NO	36.79	1.000	5.42e4	4.96e5	10.4	4.2	1.09	bb
4	200306R2_4	50.0	1.00	NO	36.79	1.000	3.53 e 5	7.08e5	47.5	-5.0	0.996	bb
5	200306R2_5	200	1.00	NO	36.79	1.000	1.46 e 6	7.21e5	193	-3.6	1.01	bb
6	200306R2_6	1500	1.01	NO	36.80	1.000	1.31e7	8.61e5	1450	-3.2	1.02	bb

Compound name: 1,2,3,4,7,8,9-HpCDF

Response Factor: 1.2099

RRF SD: 0.0633946, Relative SD: 5.23967

Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)

Curve type: RF

112/	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	1.25	0.94	NO	38.85	1.001	4.87e3	3.35e5	1.20	-3.8	1.16	bb
2	200306R2_2	2.50	0.98	NO	38.82	1.000	1.18e4	3.60e5	2.72	8.8	1.32	bb
3	200306R2_3	10.0	0.98	NO	38.82	1.000	4.25e4	3.38e5	10.4	4.1	1.26	bb
4	200306R2_4	50.0	1.00	NO	38.82	1.000	2.73e5	4.70e5	48.0	-4.0	1.16	bb
5	200306R2_5	200	1.01	NO	38.82	1.000	1.18e6	4.99e5	195	-2.3	1.18	bb
6	200306R2_6	1500	1.01	NO	38.83	1.000	1.06e7	6.02e5	1460	-2.8	1.18	bb

Compound name: OCDF

Response Factor: 0.946773

RRF SD: 0.0474682, Relative SD: 5.01368

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)

Curve type: RF

11 64 15	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	2.50	0.83	NO	41.43	1.000	9.98e3	8.40e5	2.51	0.4	0.950	ММ
2	200306R2_2	5.00	0.93	NO	41.40	1.000	2.36e4	9.23e5	5.39	7.8	1.02	bb
3	200306R2_3	20.0	0.89	NO	41.40	1.000	8.67e4	8.82e5	20.8	3.9	0.983	bb
4	200306R2_4	100	0.88	NO	41.41	1.000	5.44e5	1.20e6	95.4	-4.6	0.904	bb -
5	200306R2_5	400	0.88	NO	41.40	1.000	2.61e6	1.42e6	387	-3.2	0.917	bb
6	200306R2_6	3000	0.89	NO	41.42	1.000	2.37e7	1.75e6	2870	-4.3	0.906	bb

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Dataset:

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Compound name: 13C-2,3,7,8-TCDD

Response Factor: 1.18423

RRF SD: 0.101442, Relative SD: 8.56612

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

575370	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.79	NO	25.80	1.028	1.02e6	7.81e5	110	10.3	1.31	MM
2	200306R2_2	100	0.78	NO	25.76	1.028	1.04e6	9.79e5	89.6	-10.4	1.06	bb
3	200306R2_3	100	0.79	NO	25.78	1.028	9.83e5	9.27e5	89.5	-10.5	1.06	bb
4	200306R2_4	100	0.78	NO	25.78	1.028	1.15e6	9.40e5	103	3.3	1 22	bb
5	200306R2_5	100	0.78	NO	25.76	1.028	1.30e6	1.07e6	102	2.0	1.21	bb
6	200306R2_6	100	0.79	NO	25.76	1.028	1.34e6	1.07e6	105	5.2	1.25	bb

Compound name: 13C-1,2,3,7,8-PeCDD

Response Factor: 0.864397

RRF SD: 0.123368, Relative SD: 14.2722

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

DW LTTL	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.64	NO	30.99	1.235	7.13e5	7.81e5	106	5.7	0.914	bb
2	200306R2_2	100	0.63	NO	30.96	1.235	6.98e5	9.79e5	82.5	-17.5	0.713	bb
3	200306R2_3	100	0.64	NO	30.97	1.235	6.63e5	9.27e5	82.7	-17.3	0.715	bb
4	200306R2_4	100	0.62	NO	30.97	1.235	9.00e5	9.40e5	111	10.8	0.958	bb
5	200306R2_5	100	0.64	NO	30.97	1.236	9.49e5	1.07e6	102	2.3	0.884	bb
6	200306R2_6	100	0.63	NO	30.97	1.236	1.08e6	1.07e6	116	16.1	1.00	bb

Compound name: 13C-1,2,3,4,7,8-HxCDD

Response Factor: 0.753912

RRF SD: 0.0956829, Relative SD: 12.6915

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	1.25	NO	34.38	1.014	5.37e5	6.43e5	111	10.7	0.835	bd
2	200306R2_2	100	1.28	NO	34.35	1.014	5.23e5	7.96e5	87.2	-12.8	0.657	bd

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Compound name: 13C-1,2,3,4,7,8-HxCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	100	1.28	NO	34.36	1.014	4.95e5	7.60e5	86.4	-13.6	0.652	bd
4	200306R2_4	100	1.27	NO	34.36	1.014	6.79e5	9.06e5	99.5	-0.5	0.750	bd
5	200306R2_5	100	1.26	NO	34.36	1.014	6.81e5	9.24e5	97.8	-2.2	0.738	bd
6	200306R2_6	100	1.28	NO	34.37	1.014	8.39e5	9.40e5	118	18.4	0.892	bd

Compound name: 13C-1,2,3,6,7,8-HxCDD

Response Factor: 0.925405

RRF SD: 0.118798, Relative SD: 12.8375

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

DOC 1983	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	1.25	NO	34.49	1.017	6.23e5	6.43e5	105	4.6	0.968	db
2	200306R2_2	100	1.26	NO	34.46	1.017	6.45e5	7.96e5	87.5	-12.5	0.810	db
3	200306R2_3	100	1.25	NO	34.47	1.017	6.06e5	7.60e5	86.2	-13.8	0.797	db
4	200306R2_4	100	1.28	NO	34.47	1.017	8.29e5	9.06e5	98.9	-1.1	0.916	db
5	200306R2_5	100	1.28	NO	34.46	1.017	8.67e5	9.24e5	101	1.4	0.939	db
6	200306R2_6	100	1.27	NO	34.47	1.017	1.05e6	9.40e5	121	21.3	1.12	db

Compound name: 13C-1,2,3,7,8,9-HxCDD

Response Factor: 0.829419

RRF SD: 0.100271, Relative SD: 12.0893

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

8 11 15	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	1.30	NO	34.75	1.025	5.57e5	6.43e5	104	4.5	0.867	bd
2	200306R2_2	100	1.23	NO	34.72	1.025	5.80e5	7.96e5	87.8	-12.2	0.728	bb
3	200306R2_3	100	1.24	NO	34.73	1.025	5.46e5	7.60e5	86.6	-13.4	0.718	bb
4	200306R2_4	100	1.23	NO	34.73	1.025	7.47e5	9.06e5	99.4	-0.6	0.825	bb
5	200306R2_5	100	1.19	NO	34.73	1.025	7.83e5	9.24e5	102	2.3	0.848	bb
6	200306R2_6	100	1.25	NO	34.74	1.025	9.31e5	9.40e5	119	19.4	0.990	bb

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Compound name: 13C-1,2,3,4,6,7,8-HpCDD

Response Factor: 0.598232

RRF SD: 0.0717306, Relative SD: 11.9904

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

35.00	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	1.03	NO	38.21	1.127	3.74e5	6.43e5	97.3	-2.7	0.582	bb
2	200306R2_2	100	1.06	NO	38.17	1.127	4.34e5	7.96e5	91.1	-8.9	0.545	bd
3	200306R2_3	100	1.06	NO	38.17	1.126	3.84e5	7.60e5	84.5	-15.5	0.506	bb
4	200306R2_4	100	1.05	NO	38.19	1.127	5.52e5	9.06e5	102	1.9	0.610	bb
5	200306R2_5	100	1.11	NO	38.18	1.127	5.89e5	9.24e5	107	6.6	0.638	bd
6	200306R2_6	100	1.06	NO	38.19	1.127	6.67e5	9.40e5	119	18.6	0.709	bb

Compound name: 13C-OCDD Response Factor: 0.571169

RRF SD: 0.108174, Relative SD: 18.9391

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

1500	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	200	0.90	NO	41.23	1.216	7.05e5	6.43e5	192	-4.0	0.548	bd
2	200306R2_2	200	0.90	NO	41.21	1.216	7.62e5	7.96e5	168	-16.2	0.479	bb
3	200306R2_3	200	0.94	NO	41.22	1.216	7.16e5	7.60e5	165	-17.5	0.471	bd
4	200306R2_4	200	0.85	NO	41.21	1.216	9.75e5	9.06e5	189	-5.7	0.538	bb
5	200306R2_5	200	0.89	NO	41.21	1.216	1.17e6	9.24e5	222	11.0	0.634	bd
6	200306R2_6	200	0.90	NO	41.23	1.217	1.42e6	9.40e5	265	32.5	0.757	bd

Compound name: 13C-2,3,7,8-TCDF

Response Factor: 1.08928

RRF SD: 0.0987678, Relative SD: 9.06725

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

1-2	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.79	NO	24.84	0.990	1.43e6	1.19e6	111	11.0	1.21	bb
2	200306R2_2	100	0.79	NO	24.79	0.989	1.45e6	1.48e6	89.7	-10.3	0.977	bb

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Compound name: 13C-2,3,7,8-TCDF

THE STATE OF	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	100	0.77	NO	24.81	0.989	1.38e6	1.43e6	88.3	-11.7	0.962	bb
4	200306R2_4	100	0.78	NO	24.82	0.990	1.46e6	1.27e6	106	5.6	1.15	bb
5	200306R2_5	100	0.78	NO	24.81	0.990	1.74e6	1.56e6	103	2.7	1.12	bb
6	200306R2_6	100	0.78	NO	24.79	0.989	1.81e6	1.62e6	103	2.7	1.12	bb

Compound name: 13C-1,2,3,7,8-PeCDF

Response Factor: 0.876347

RRF SD: 0.137914, Relative SD: 15.7373

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

-27	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	1.55	NO	29.66	1.182	1.13e6	1.19e6	109	8.6	0.952	bb
2	200306R2_2	100	1.60	NO	29.63	1.182	1.07e6	1.48e6	82.5	-17.5	0.723	bb
3	200306R2_3	100	1.58	NO	29.63	1.182	9.93e5	1.43e6	79.2	-20.8	0.694	bb
4	200306R2_4	100	1.60	NO	29.63	1.181	1.30e6	1.27e6	117	17.2	1.03	bb
5	200306R2_5	100	1.57	NO	29.63	1.182	1.38e6	1.56e6	101	1.2	0.887	bb
6	200306R2_6	100	1.57	NO	29.65	1.183	1.58e6	1.62e6	111	11.3	0.976	bb

Compound name: 13C-2,3,4,7,8-PeCDF

Response Factor: 0.843553

RRF SD: 0.133299, Relative SD: 15.8021

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

35.11	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	1.57	NO	30.68	1.223	1.05e6	1.19e6	105	4.8	0.884	db
2	200306R2_2	100	1.58	NO	30.64	1.222	1.02e6	1.48e6	81.4	-18.6	0:687	₫b
3	200306R2_3	100	1.58	NO	30.65	1.222	9.68e5	1.43e6	80.2	-19.8	0.677	db
4	200306R2_4	100	1.60	NO	30.65	1.222	1.27e6	1.27e6	118	18.2	0.997	db
5	200306R2_5	100	1.58	NO	30.65	1.223	1.36e6	1.56e6	103	3.2	0.870	db
6	200306R2_6	100	1.60	NO	30.67	1.224	1.53e6	1.62e6	112	12.2	0.947	db

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Quantify Compound Summary Report MassLynx 4.1 SCN815

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Compound name: 13C-1,2,3,4,7,8-HxCDF

Response Factor: 1.00027

RRF SD: 0.122541, Relative SD: 12.2508

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.52	NO	33.52	0.988	7.10e5	6.43e5	110	10.3	1.10	bd
2	200306R2_2	100	0.51	NO	33.50	0.989	6.91e5	7.96e5	86.8	-13.2	0.869	bd
3	200306R2_3	100	0.52	NO	33.51	0.989	6.52e5	7.60e5	85.8	-14.2	0.858	bd
4	200306R2_4	100	0.51	NO	33.51	0.989	8.98e5	9.06e5	99.1	-0.9	0.992	bd
5	200306R2_5	100	0.52	NO	33.50	0.989	9.40e5	9.24e5	102	1.7	1.02	bd
6	200306R2_6	100	0.52	NO	33.51	0.989	1.09e6	9.40e5	116	16.3	1.16	bd

Compound name: 13C-1,2,3,6,7,8-HxCDF

Response Factor: 1.1178

RRF SD: 0.141321, Relative SD: 12.6428

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.51	NO	33.65	0.992	7.80e5	6.43e5	108	8.5	1.21	db
2	200306R2_2	100	0.51	NO	33.62	0.992	7.71e5	7.96e5	86.6	-13.4	0.969	db
3	200306R2_3	100	0.53	NO	33.63	0.992	7.22e5	7.60e5	85.0	-15.0	0.951	db
4	200306R2_4	100	0.52	NO	33.63	0.992	1.01e6	9.06e5	99.9	-0.1	1.12	db
5	200306R2_5	100	0.53	NO	33.61	0.992	1.05e6	9.24e5	102	2.1	1.14	db
6	200306R2_6	100	0.52	NO	33.64	0.993	1.24e6	9.40e5	118	17.9	1.32	db

Compound name: 13C-2,3,4,6,7,8-HxCDF

Response Factor: 1.03533

RRF SD: 0.12301, Relative SD: 11.8812

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

1	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.52	NO	34.21	1.009	7.13e5	6.43e5	107	7.1	1.11	bb
2	200306R2_2	100	0.51	NO	34.18	1.009	7.13e5	7.96e5	86.5	-13.5	0.896	bb

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Quantify Compound Summary Report Vista Analytical Laboratory

MassLynx 4.1 SCN815

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Dataset:

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Last Altered: Printed:

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Compound name: 13C-2,3,4,6,7,8-HxCDF

11 12 13	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	100	0.52	NO	34.19	1.009	6.81e5	7.60e5	86.6	-13.4	0.896	bb
4	200306R2_4	100	0.53	NO	34.19	1.009	9.38e5	9.06e5	100	0.1	1.04	MM
5	200306R2_5	100	0.52	NO	34.19	1.009	9 84e5	9.24e5	103	2.9	1.07	bb
6	200306R2_6	100	0.52	NO	34.20	1.009	1.14e6	9.40e5	117	16.9	1.21	bb

Compound name: 13C-1,2,3,7,8,9-HxCDF

Response Factor: 0.873112

RRF SD: 0.110234, Relative SD: 12.6254

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.51	NO	35.08	1.035	5.96e5	6.43e5	106	6.1	0.926	bb
2	200306R2_2	100	0.51	NO	35.06	1.035	6.11e5	7.96e5	87.9	-12.1	0.768	bb
3	200306R2_3	100	0.52	NO	35.07	1.035	5.68e5	7.60e5	85.6	-14.4	0.747	bb
4	200306R2_4	100	0.52	NO	35.07	1.035	7.83e5	9.06e5	99.0	-1.0	0.864	bb
5	200306R2_5	100	0.51	NO	35.06	1.035	8.17e5	9.24e5	101	1.3	0.884	bb
6	200306R2_6	100	0.53	NO	35.08	1.035	9.86e5	9.40e5	120	20.1	1.05	bb

Compound name: 13C-1,2,3,4,6,7,8-HpCDF

Response Factor: 0.770799

RRF SD: 0.0912069, Relative SD: 11.8328

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.44	NO	36.80	1.085	5.13e5	6.43e5	104	3.5	0.798	bb
2	200306R2_2	100	0.46	NO	36.77	1.085	5.54e5	7.96e5	90.3	-9.7	0.696	bb
3	200306R2_3	100	0.45	NO	36.78	1.085	4.96e5	7.60e5	84.6	-15.4	0.652	bb
4	200306R2_4	100	0.46	NO	36.78	1.085	7.08e5	9.06e5	101	1.4	0.782	bd
5	200306R2_5	100	0.45	NO	36.78	1.086	7.21e5	9.24e5	101	1.3	0.781	bb
6	200306R2_6	100	0.45	NO	36.79	1.086	8.61e5	9.40e5	119	18.8	0.916	bb

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U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Printed: Monday, March 09, 2020 08:18:02 Pacific Daylight Time Monday, March 09, 2020 08:33:03 Pacific Daylight Time

Compound name: 13C-1,2,3,4,7,8,9-HpCDF

Response Factor: 0.519283

RRF SD: 0.0710328, Relative SD: 13.679

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

SSIRN	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.45	NO	38.83	1.145	3.35e5	6.43e5	100	0.2	0.521	bd
2	200306R2_2	100	0.45	NO	38.80	1 145	3.60e5	7.96e5	87.0	-13.0	0.452	bd
3	200306R2_3	100	0.44	NO	38.81	1.145	3.38e5	7.60e5	85.6	-14.4	0.444	bd
4	200306R2_4	100	0.45	NO	38.81	1.145	4.70e5	9.06e5	99.9	-0.1	0.519	bb
5	200306R2_5	100	0.44	NO	38.81	1.145	4.99e5	9.24e5	104	3.9	0.540	bb
6	200306R2_6	100	0.45	NO	38.82	1.145	6.02e5	9.40e5	123	23.3	0.640	bb

Compound name: 13C-OCDF Response Factor: 0.696311

RRF SD: 0.133796, Relative SD: 19.215

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

HURSE	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	200	0.88	NO	41.42	1.221	8.40e5	6.43e5	188	-6.2	0.653	bb
2	200306R2_2	200	0.90	NO	41.38	1.221	9.23e5	7.96e5	167	-16.7	0.580	bb
3	200306R2_3	200	0.86	NO	41.39	1.221	8.82e5	7.60e5	167	-16.6	0.581	bb
4	200306R2_4	200	0.89	NO	41.40	1.222	1 20e6	9.06e5	191	-4.6	0.664	bb
5	200306R2_5	200	0.89	NO	41.39	1.222	1.42e6	9.24e5	221	10.7	0.771	bb
6	200306R2_6	200	0.89	NO	41.41	1.222	1.75e6	9.40e5	267	33.4	0.929	bb

Compound name: 37CI-2,3,7,8-TCDD

Response Factor: 1.17455

RRF SD: 0.0840795, Relative SD: 7.15847

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

CC 50	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	0.250			25.84	1.030	2.53e3	7.81e5	0.276	10.3	1.30	bb
2	200306R2_2	0.500			25.78	1.029	5.58e3	9.79e5	0.486	-2.9	1.14	bb

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Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.gld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

Compound name: 37CI-2,3,7,8-TCDD

0503	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	200306R2_3	2.00			25.80	1.029	1.94e4	9.27e5	1.78	-11.1	1.04	bb
4	200306R2_4	10.0			25.80	1.029	1.11e5	9.40e5	10.1	0.8	1.18	bb
5	200306R2_5	40.0			25.80	1.029	4.97e5	1.07e6	39.5	-1.4	1.16	bb
6	200306R2_6	200			25.80	1.029	2.63e6	1.07e6	208	4.2	1.22	bb

Compound name: 13C-1,2,3,4-TCDD

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.81	NO	25.09	1.000	7.81e5	7.81e5	100	0.0	1.00	bb
2	200306R2_2	100	0.80	NO	25.06	1.000	9.79e5	9.79e5	100	0.0	1.00	bb
3	200306R2_3	100	0.80	NO	25.08	1.000	9.27e5	9.27e5	100	0.0	1.00	bb
4	200306R2_4	100	0.78	NO	25.08	1.000	9.40e5	9.40e5	100	0.0	1.00	bb
5	200306R2_5	100	0.81	NO	25.06	1.000	1.07e6	1.07e6	100	0.0	1.00	bb
6	200306R2_6	100	0.79	NO	25.06	1.000	1.07e6	1.07e6	100	0.0	1.00	bb

Compound name: 13C-1,2,3,4-TCDF

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)

Curve type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.80	NO	23.24	1.000	1.19e6	1.19e6	100	0.0	1.00	bb
2	200306R2_2	100	0.79	NO	23.21	1.000	1.48e6	1.48e6	100	0 0	1.00	bb
3	200306R2_3	100	0.81	NO	23.21	1.000	1.43e6	1.43e6	100	0.0	1.00	bb
4	200306R2_4	100	0.79	NO	23.22	1.000	1.27e6	1.27e6	100	0.0	1.00	bb
5	200306R2_5	100	0.79	NO	23.21	1.000	1.56e6	1.56e6	100	0.0	1.00	bb
6	200306R2_6	100	0.79	NO	23.19	1.000	1.62e6	1.62e6	100	0.0	1.00	bb

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Dataset:

U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered:

Printed:

Monday, March 09, 2020 08:18:02 Pacific Daylight Time Monday, March 09, 2020 08:33:03 Pacific Daylight Time

Compound name: 13C-1,2,3,4,6,9-HxCDF

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200306R2_1	100	0.51	NO	33.91	1.000	6.43e5	6.43e5	100	0.0	1.00	bb
2	200306R2_2	100	0.52	NO	33.88	1.000	7.96e5	7.96e5	100	0.0	1.00	bb
3	200306R2_3	100	0.51	NO	33.89	1.000	7.60e5	7.60e5	100	0 0	1.00	bb
4	200306R2_4	100	0.52	NO	33.89	1.000	9.06e5	9.06e5	100	0.0	1.00	bb
5	200306R2_5	100	0.52	NO	33.88	1.000	9.24e5	9.24e5	100	0.0	1.00	bb
6	200306R2_6	100	0.52	NO	33.89	1.000	9.40e5	9.40e5	100	0.0	1.00	bb

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Dataset:

Untitled

Last Altered: Printed: Monday, March 09, 2020 08:43:03 Pacific Daylight Time Monday, March 09, 2020 08:45:55 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Compound name: 2,3,7,8-TCDD

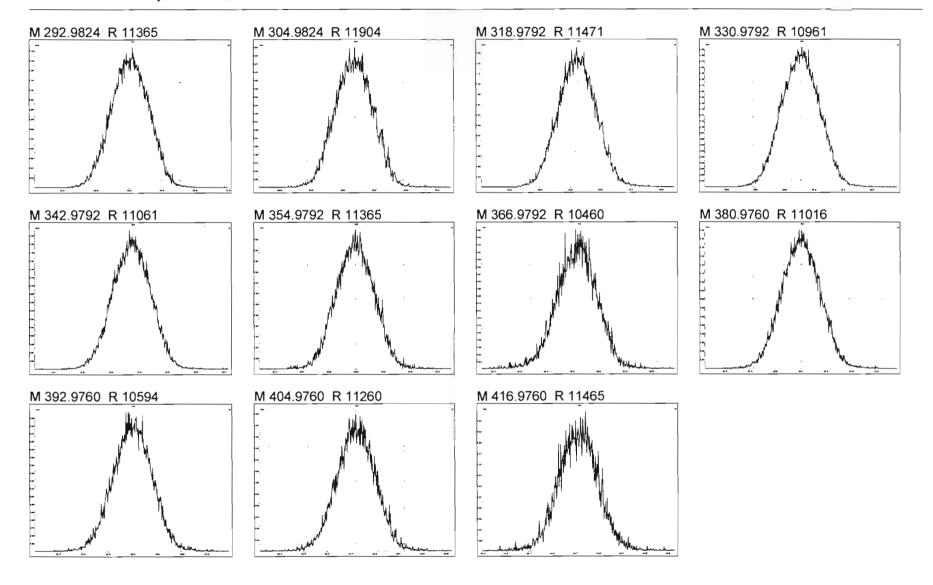
TAS V	Name	ID .	Acq.Date	Acq.Time
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2	200306R2_2	ST200306R2_2 1613 CS1 19L2303	06-Mar-20	13:58:25
3	200306R2_3	ST200306R2_3 1613 CS2 19L2304	06-Mar-20	14:44:37
4	200306R2_4	ST200306R2_4 1613 CS3 19L2305	06-Mar-20	15:32:12
5	200306R2_5	ST200306R2_5 1613 CS4 19L2306	06-Mar-20	16:19:37
6	200306R2_6	ST200306R2_6 1613 CS5 19L2307	06-Mar-20	17:07:03
7	200306R2_7	SOLVENT BLANK	06-Mar-20	17:56:11
8	200306R2_8	SS200306R2_1 1613 SSS 19L2308	06-Mar-20	18:42:29
9	200306R2_9	SOLVENT BLANK	06-Mar-20	19:38:48
10	200306R2_10	2000406-09 PDI-049SC-A-04-05-191015 16.98	06-Mar-20	20:25:03
11	200306R2_11	2000406-10 PDI-049SC-A-05-06-191015 16.09	06-Mar-20	21:12:36
12	200306R2_12	2000406-11 PDI-049SC-A-06-07-191015 13.96	06-Mar-20	22:00:09
13	200306R2_13	2000406-12 PDI-049SC-A-07-08-191015 12.78	06-Mar-20	22:47:33
14	200306R2_14	2000406-13 PDI-059SC-A-11-12-191016 13.47	06-Mar-20	23:35:07
15	200306R2_15	2000406-14 PDI-084SC-A-03-04-191002 18.94	07-Mar-20	00:22:31
16	200306R2_16	2000406-15 PDI-084SC-A-04-05-191002 17.76	07-Mar-20	01:09:56

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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Friday, March 06, 2020 13:05:44 Pacific Standard Time

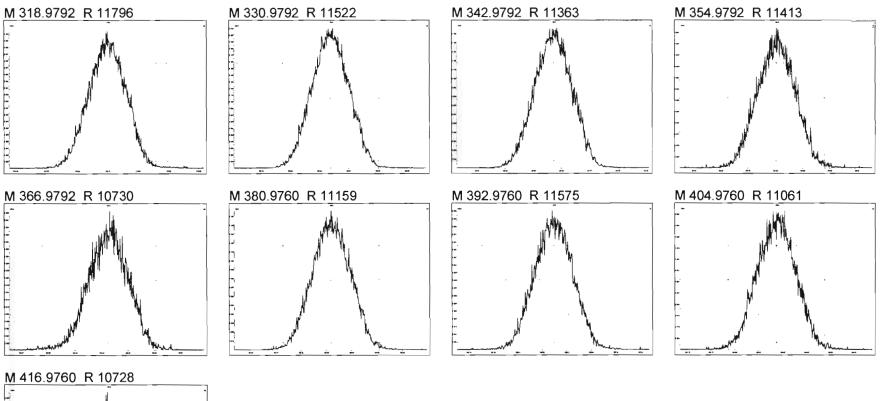


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

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Friday, March 06, 2020 13:06:28 Pacific Standard Time



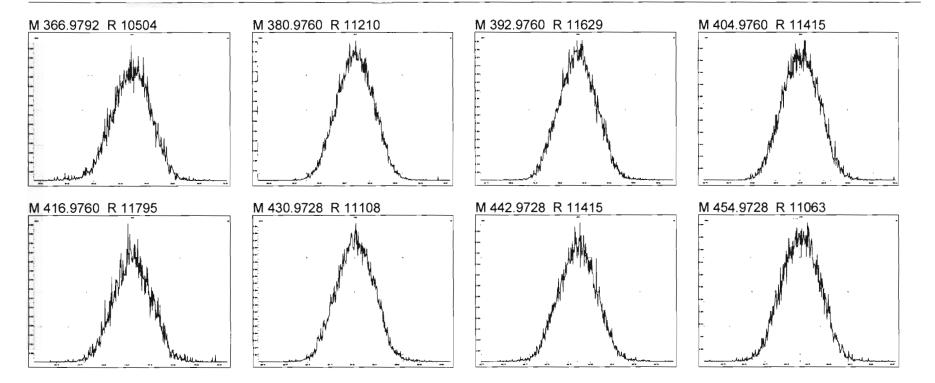
M 416.9760 R 10728

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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

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Friday, March 06, 2020 13:07:06 Pacific Standard Time

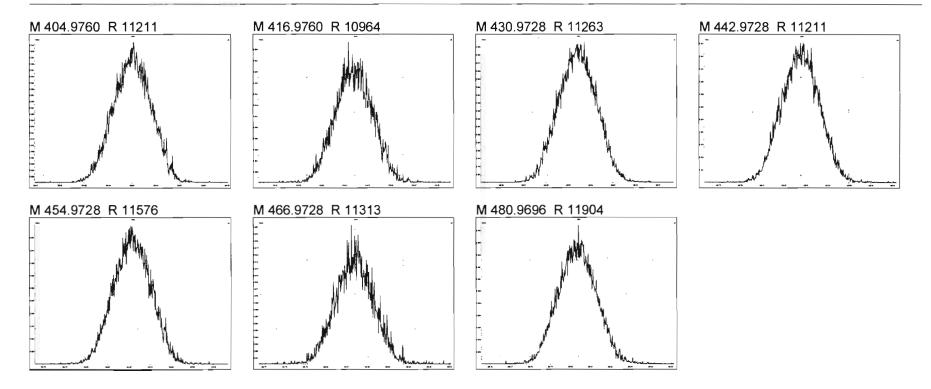


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Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

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Friday, March 06, 2020 13:07:43 Pacific Standard Time



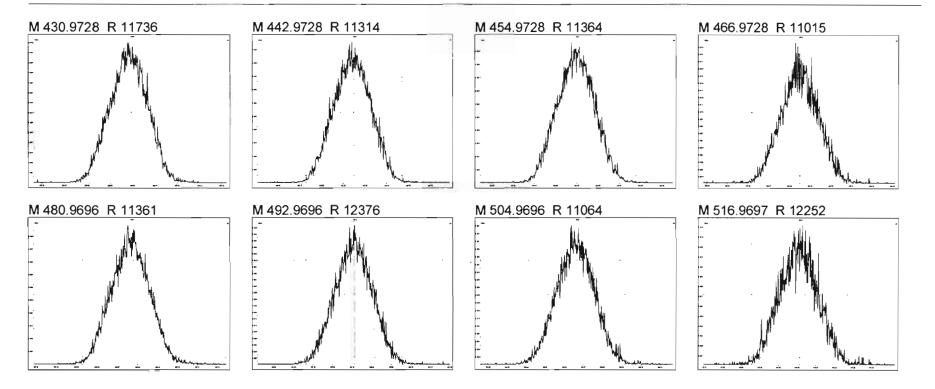
Work Order 1903654 Page 1008 of 1184

File:

Experiment: OCDD_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Friday, March 06, 2020 13:08:16 Pacific Standard Time



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MassLynx 4.1 SCN815

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Dataset:

Untitled

Last Altered: Printed: Monday, March 09, 2020 08:48:00 Pacific Daylight Time Monday, March 09, 2020 08:48:29 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 06 Mar 2020 18:12:45

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

3000	# Name	RT
1	1 1,3,6,8-TCDD (First)	21.53
2	2 1,2,8,9-TCDD (Last)	26.81
3	3 1,2,4,7,9-PeCDD (First)	28.70
4	4 1,2,3,8,9-PeCDD (Last)	31.38
5	5 1,2,4,6,7,9-HxCDD (First)	32.90
6	6 1,2,3,7,8,9-HxCDD (Last)	34.74
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.17
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.21
9	9 1,3,6,8-TCDF (First)	19.52
10	10 1,2,8,9-TCDF (Last)	26.96
11	11 1,3,4,6,8-PeCDF (First)	26.93
12	12 1,2,3,8,9-PeCDF (Last)	31.63
13	13 1,2,3,4,6,8-HxCDF (First)	32.34
14	14 1,2,3,7,8,9-HxCDF (Last)	35.08
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.79
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.82

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Quantify Sample Report

MassLynx 4.1 SCN815

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Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

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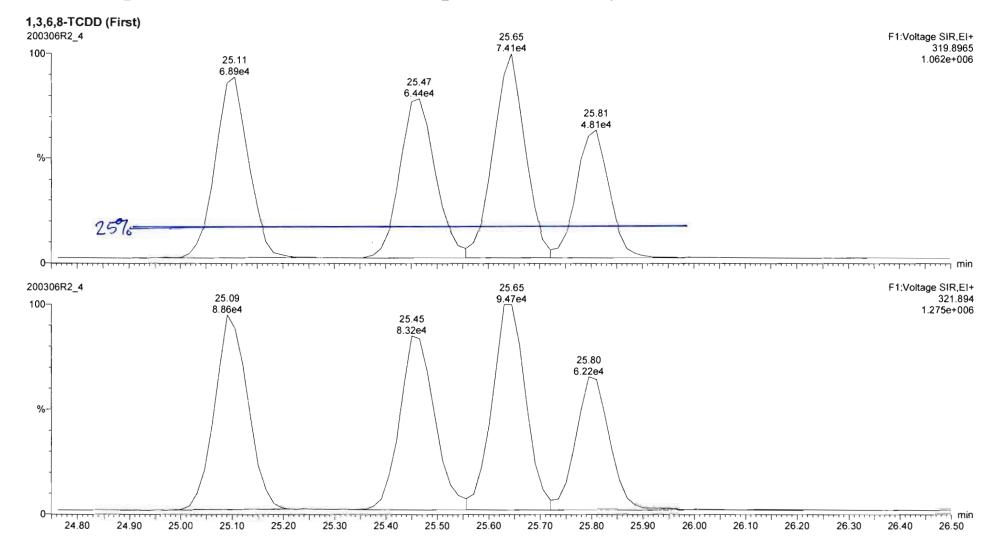
Monday, March 09, 2020 08:48:29 Pacific Daylight Time

GRB 03/09/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 06 Mar 2020 18:12:45

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305



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Dataset:

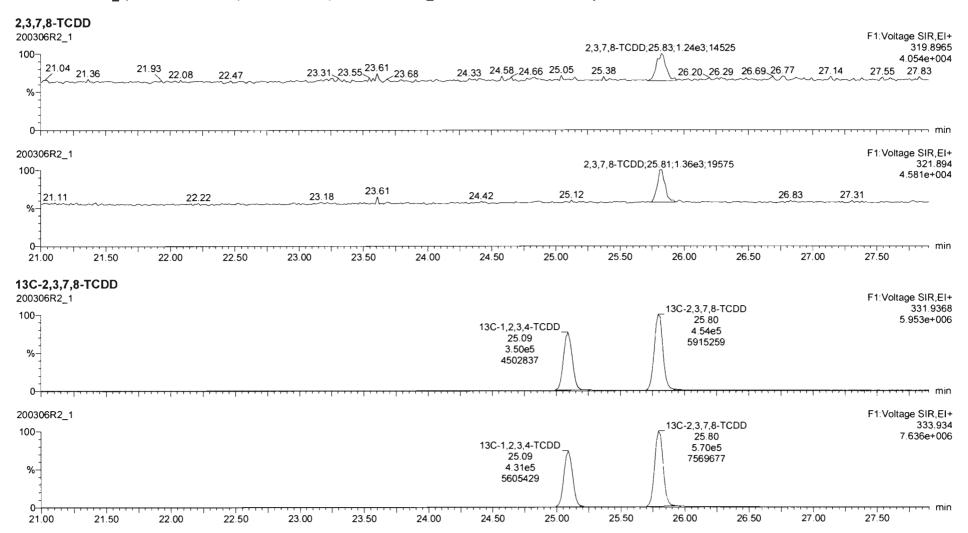
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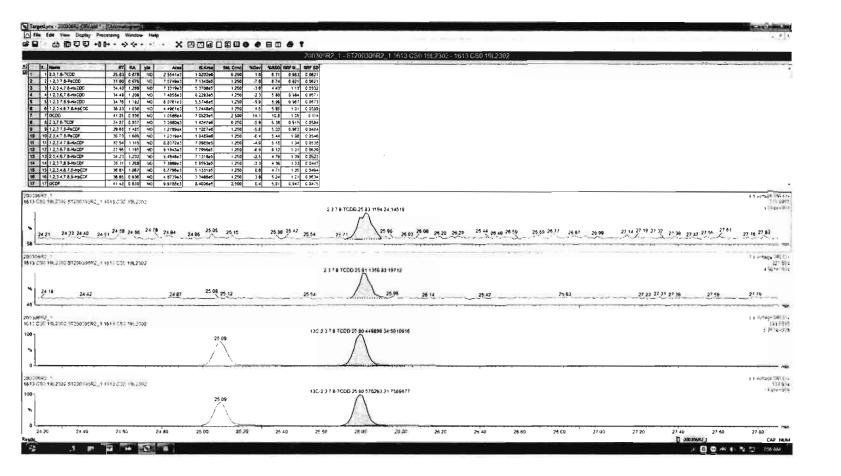
Last Altered: Printed: Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5 1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302





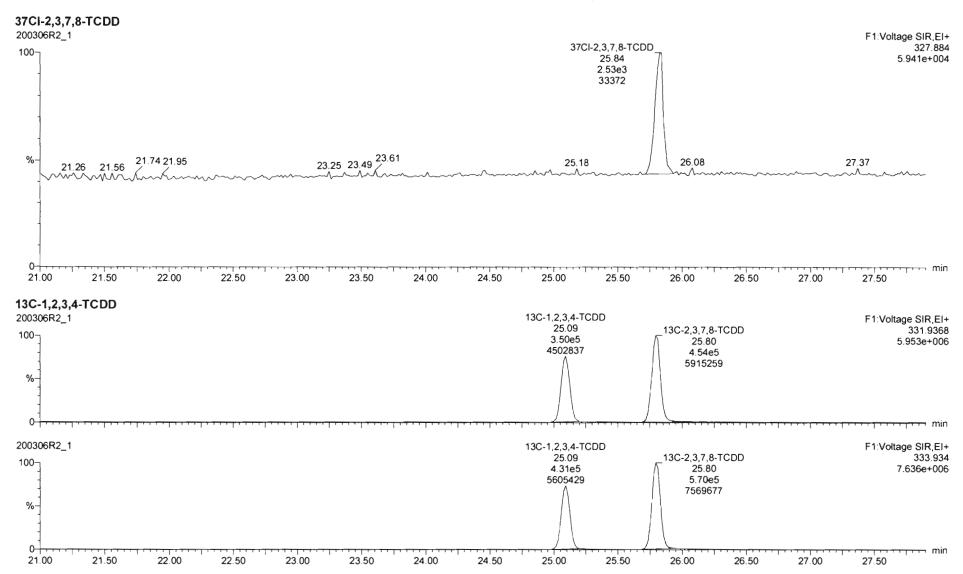
Work Order 1903654 Page 1013 of 1184

Untitled

Last Altered: Printed:

Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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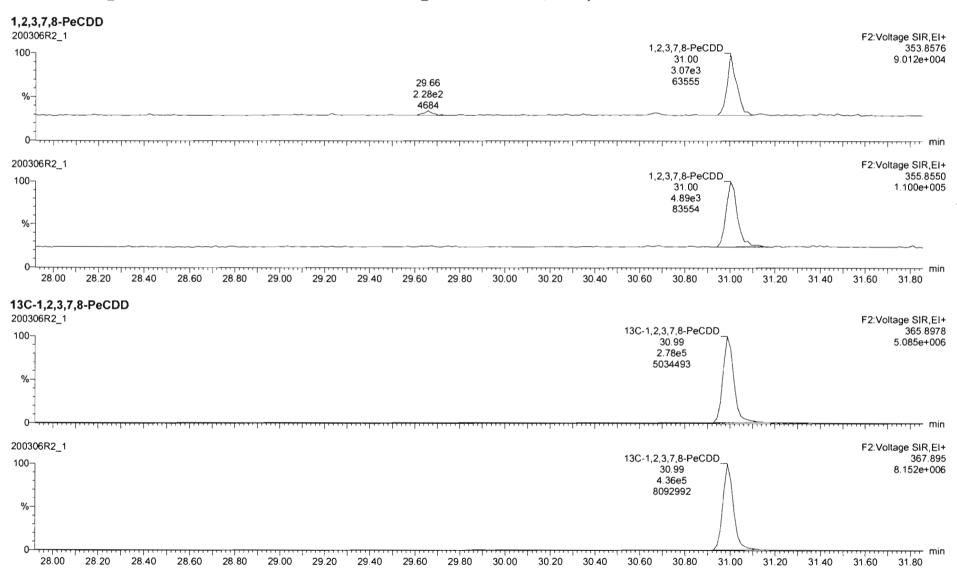


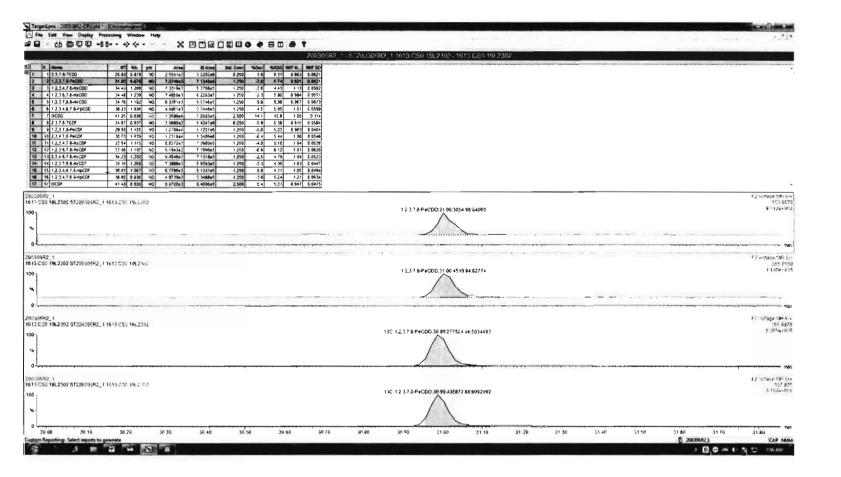
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Last Altered: Printed:

Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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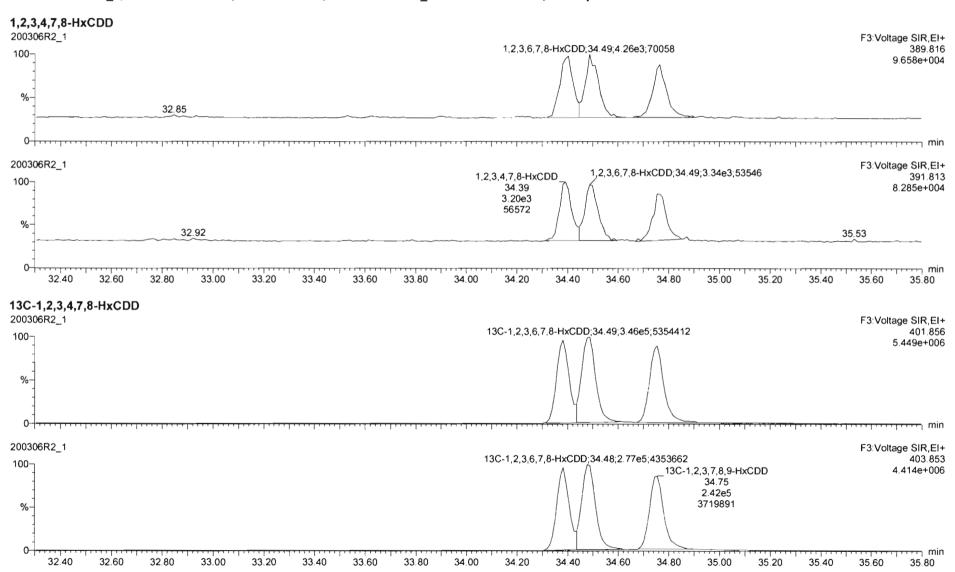


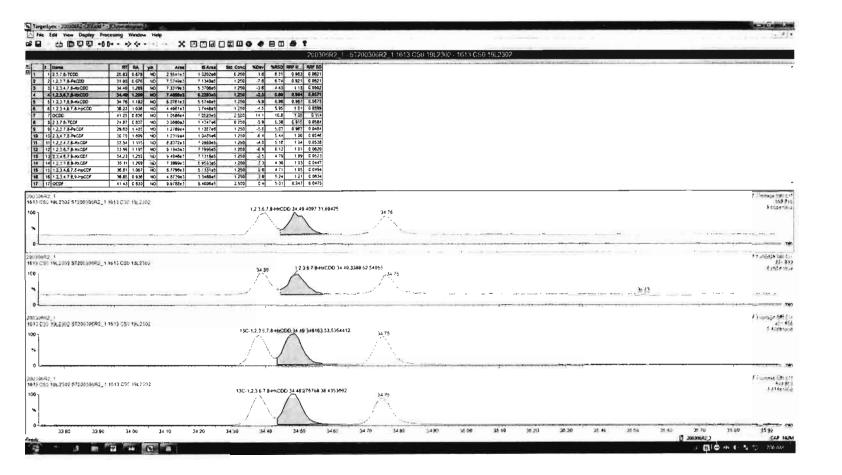
Work Order 1903654 Page 1016 of 1184

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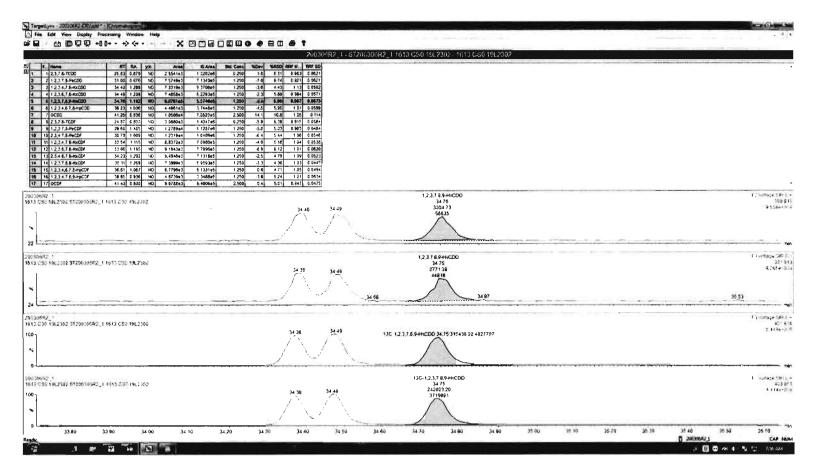
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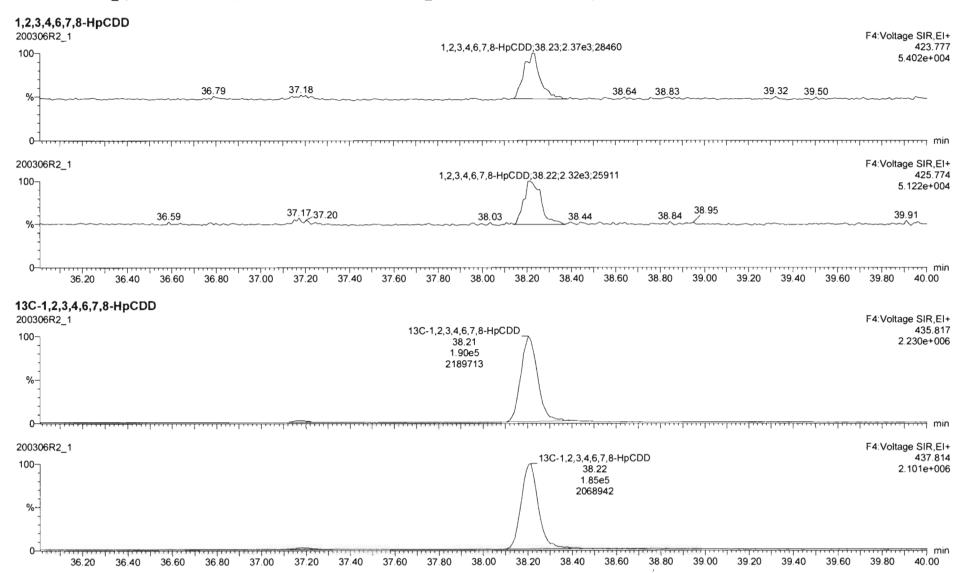


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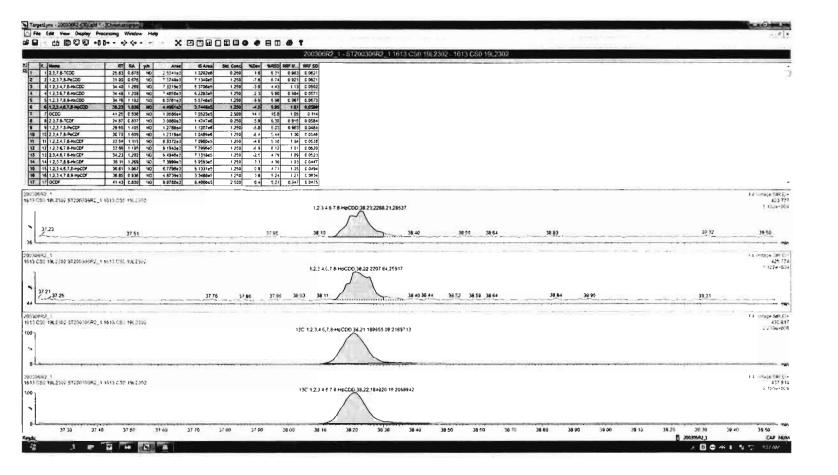
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Work Order 1903654



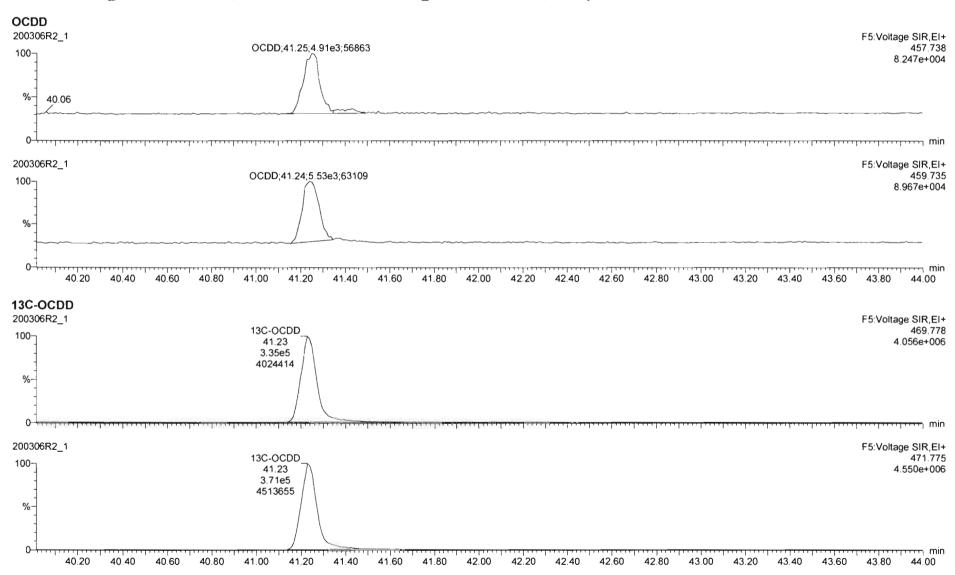
Work Order 1903654 Page 1021 of 1184

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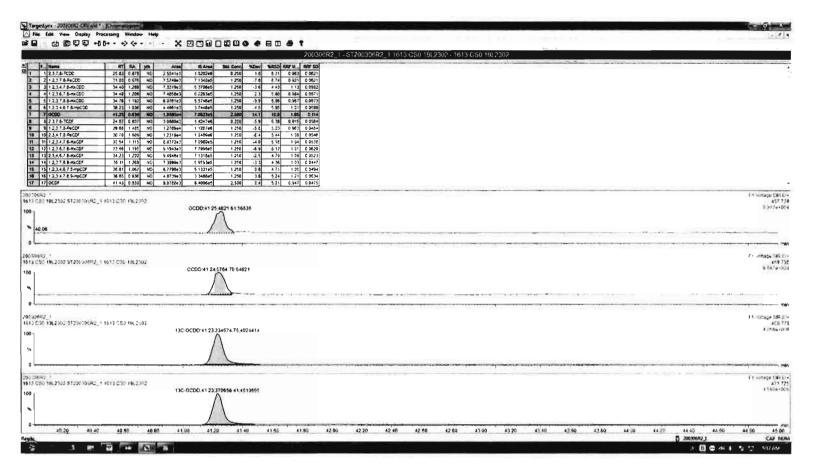
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Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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Work Order 1903654

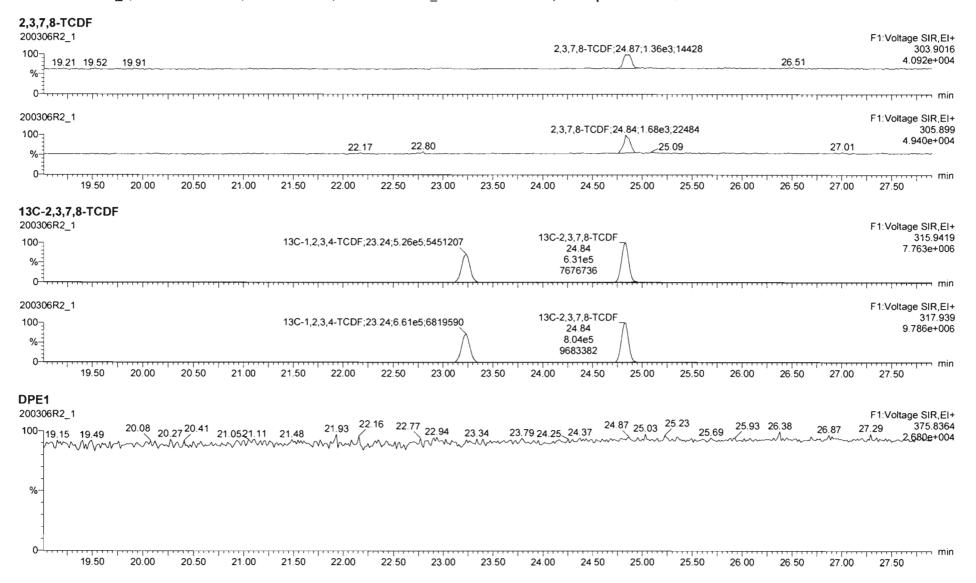


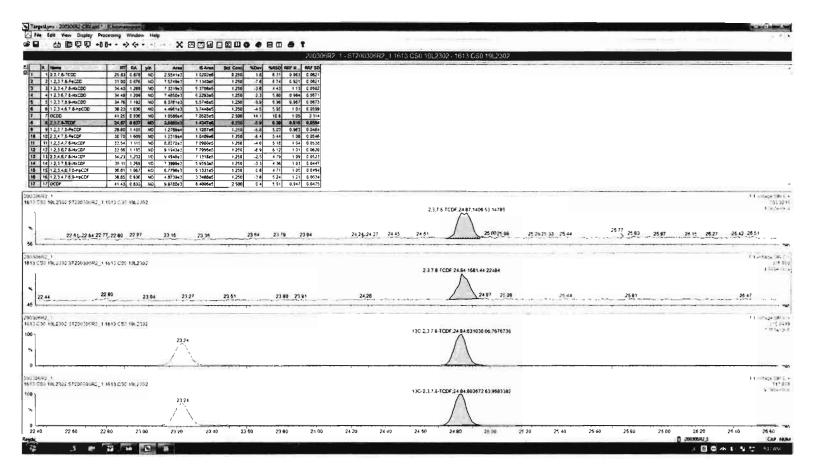
Work Order 1903654 Page 1023 of 1184

Untitled

Last Altered: Printed: Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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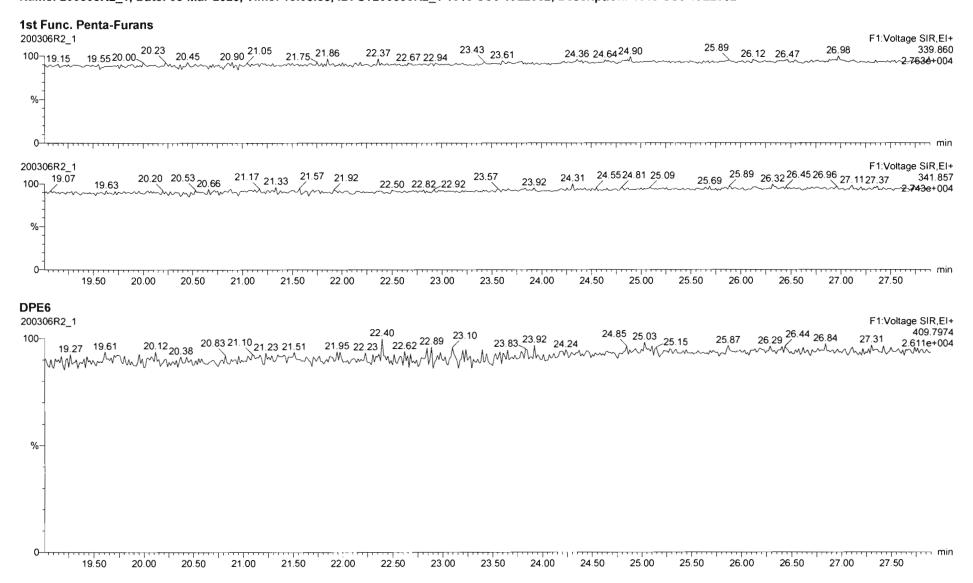
Work Order 1903654 Page 1025 of 1184

Untitled

Last Altered: Printed:

Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

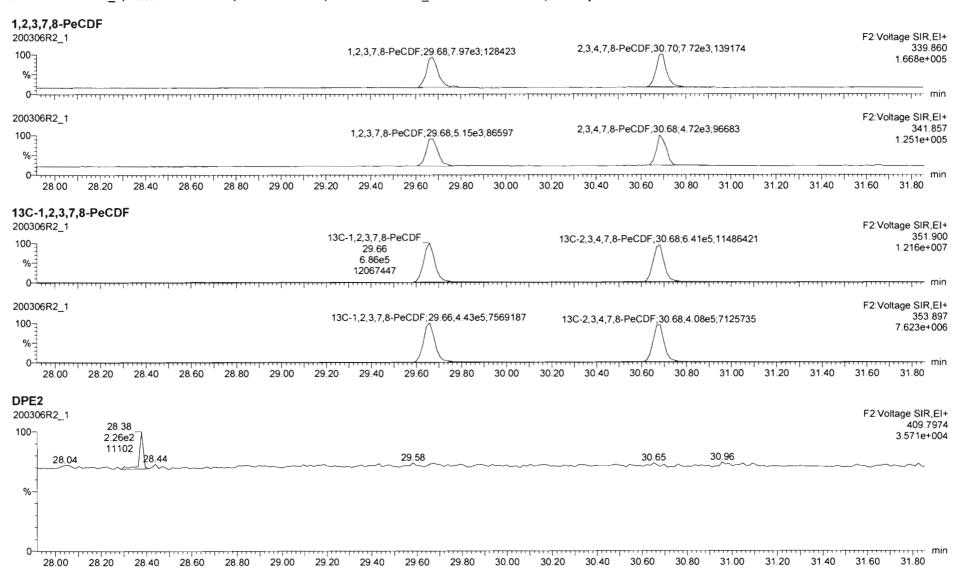
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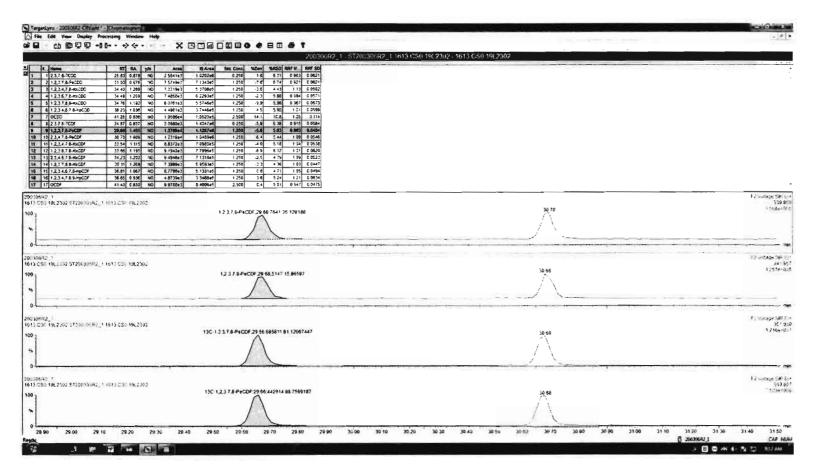
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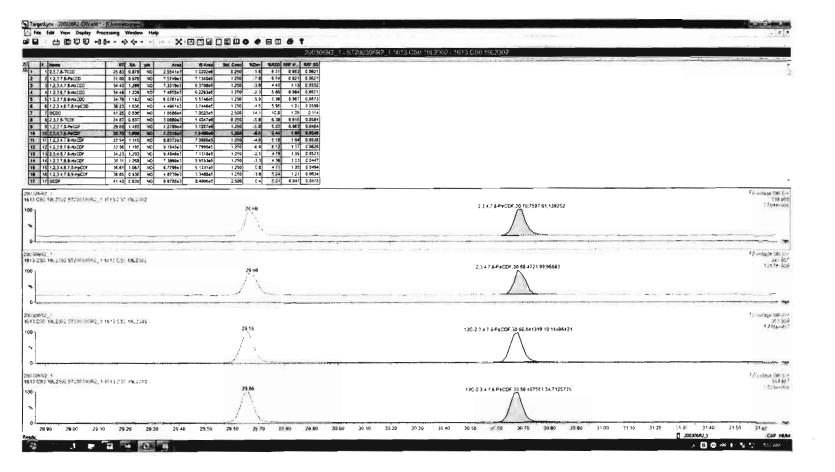
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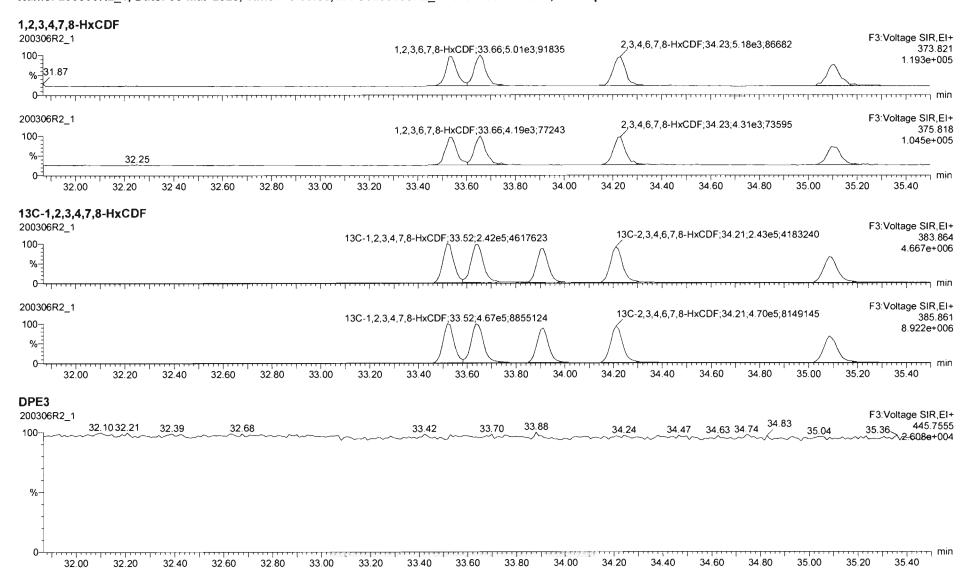


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Last Altered: Printed: Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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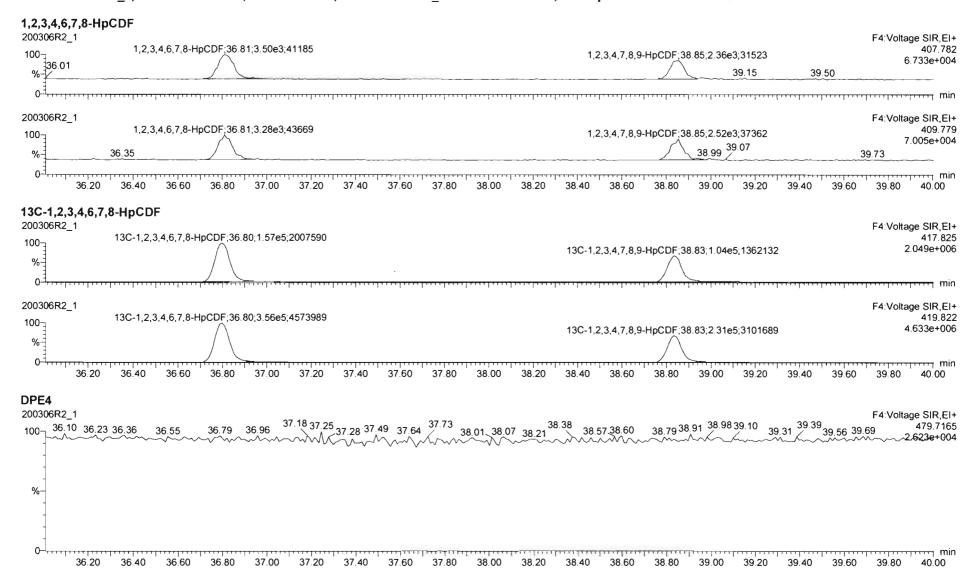


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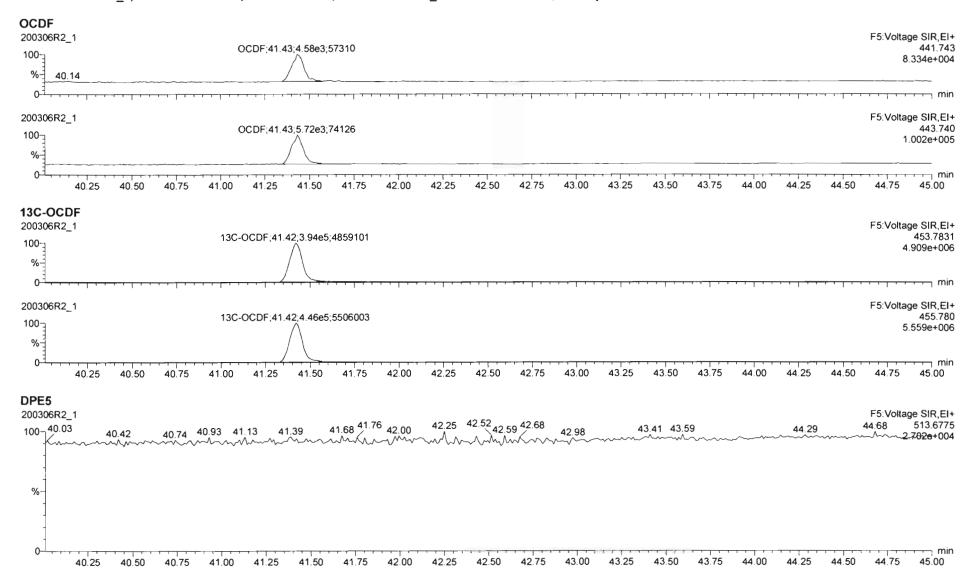


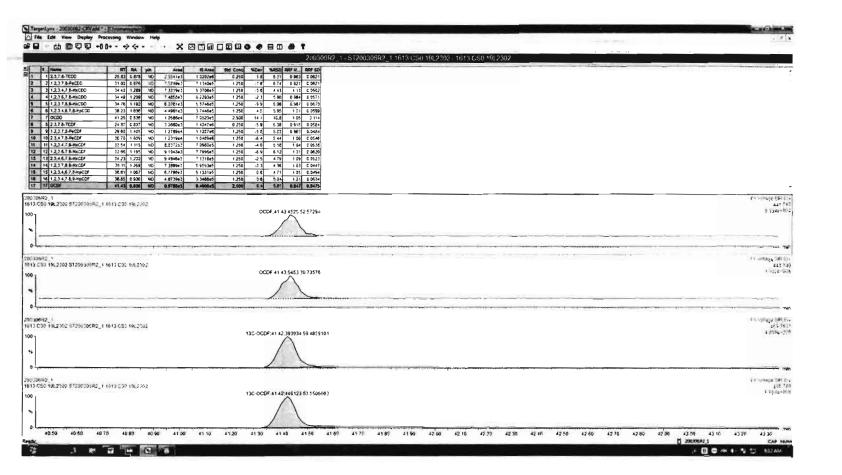
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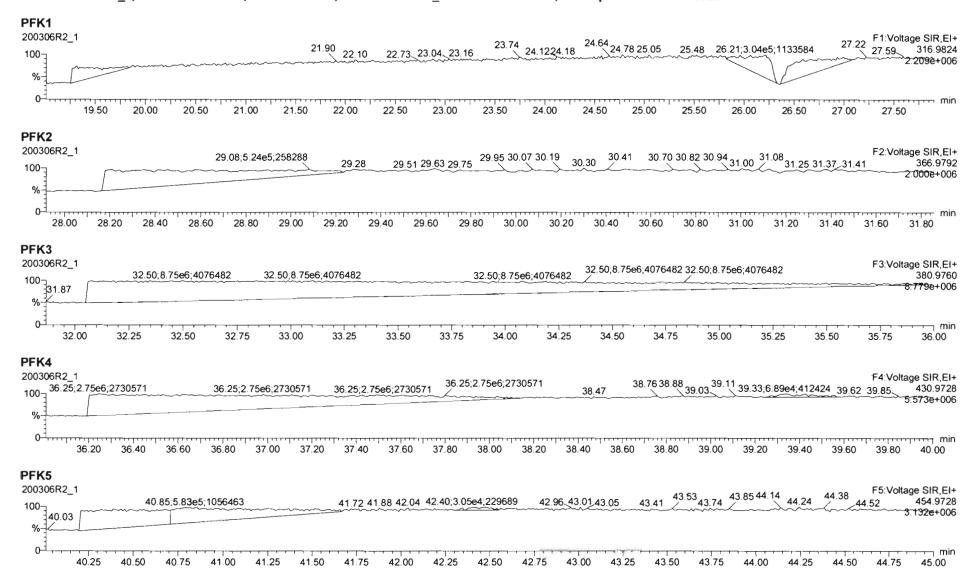
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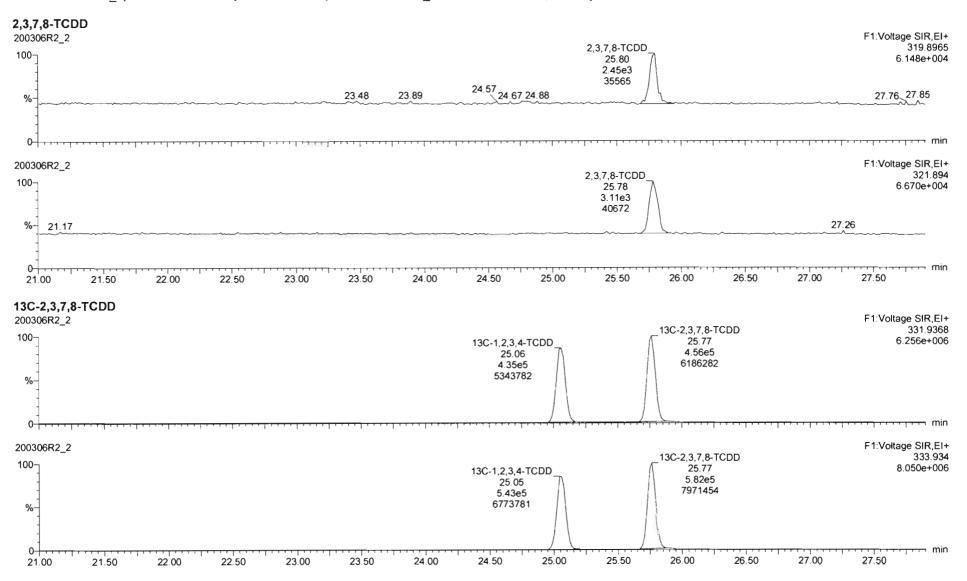


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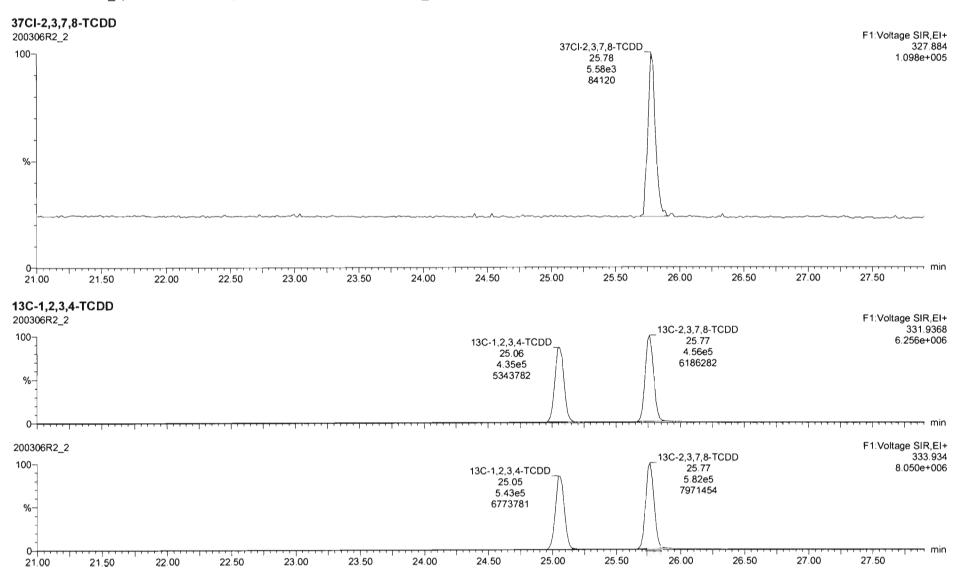


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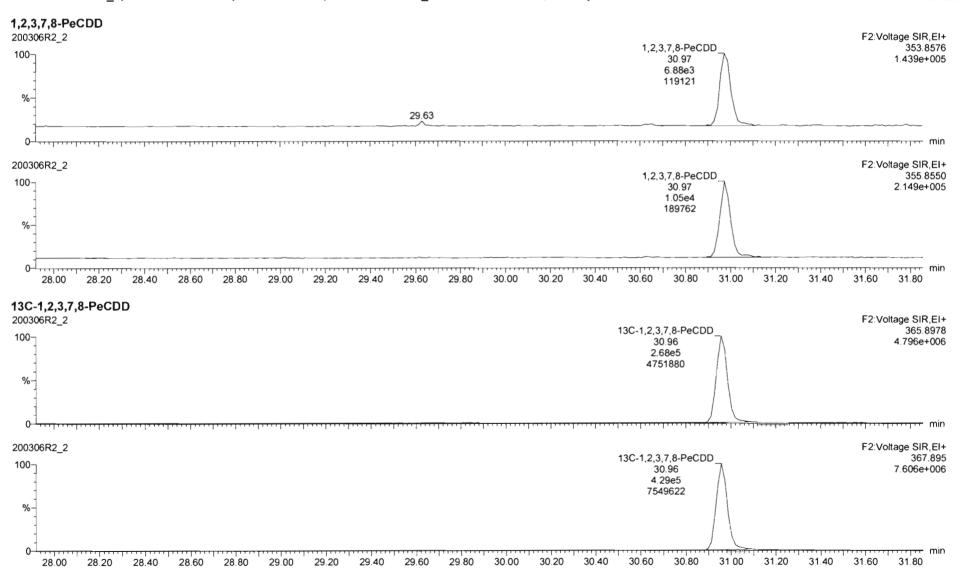
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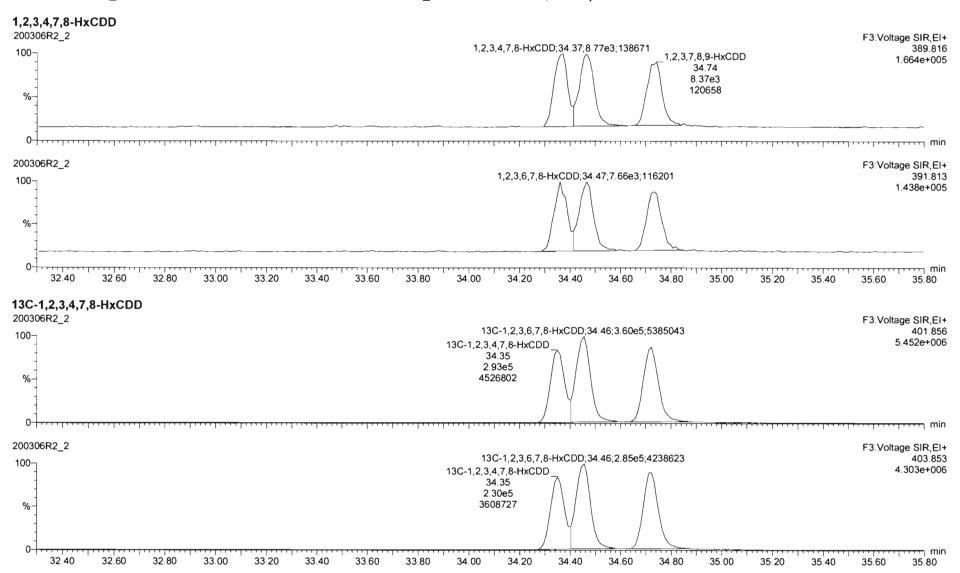
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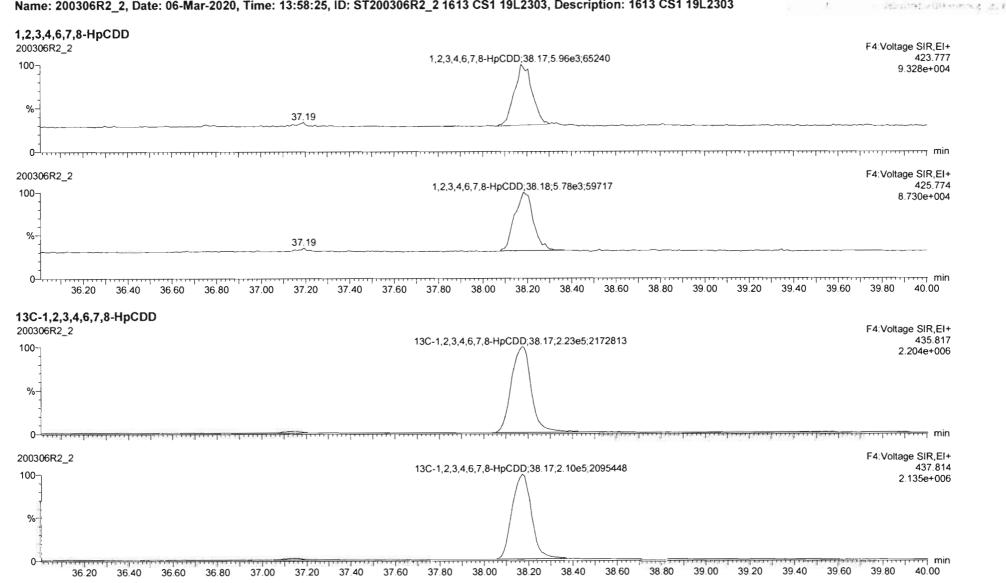
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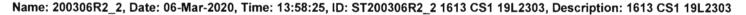
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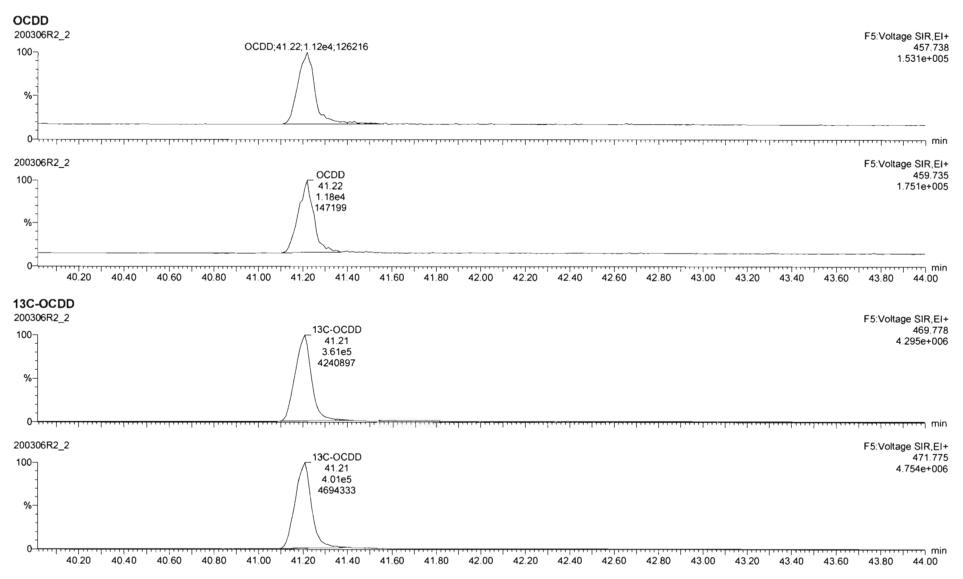
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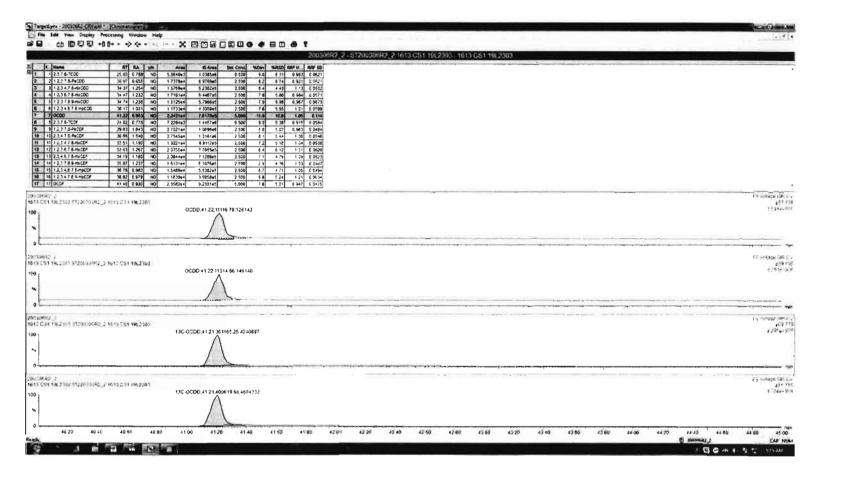
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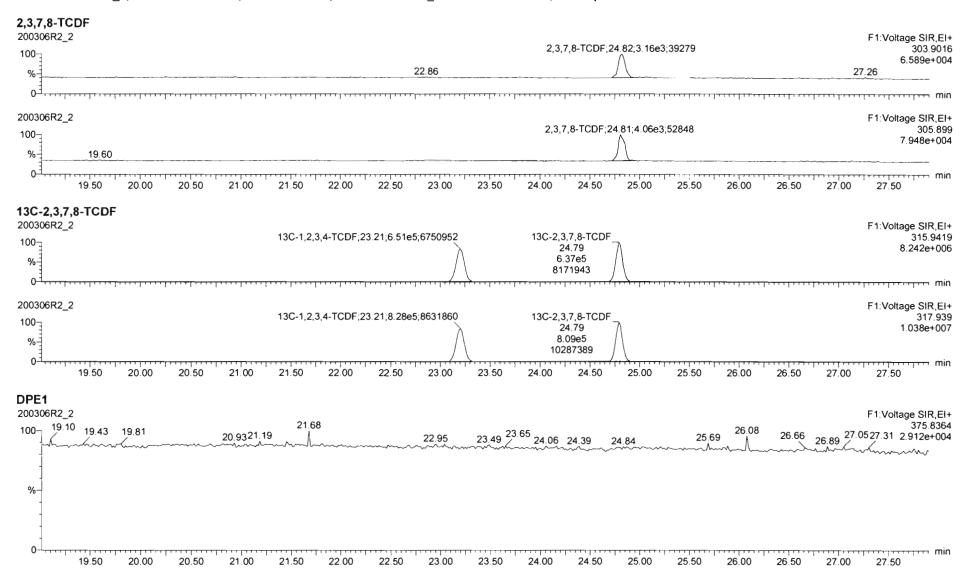
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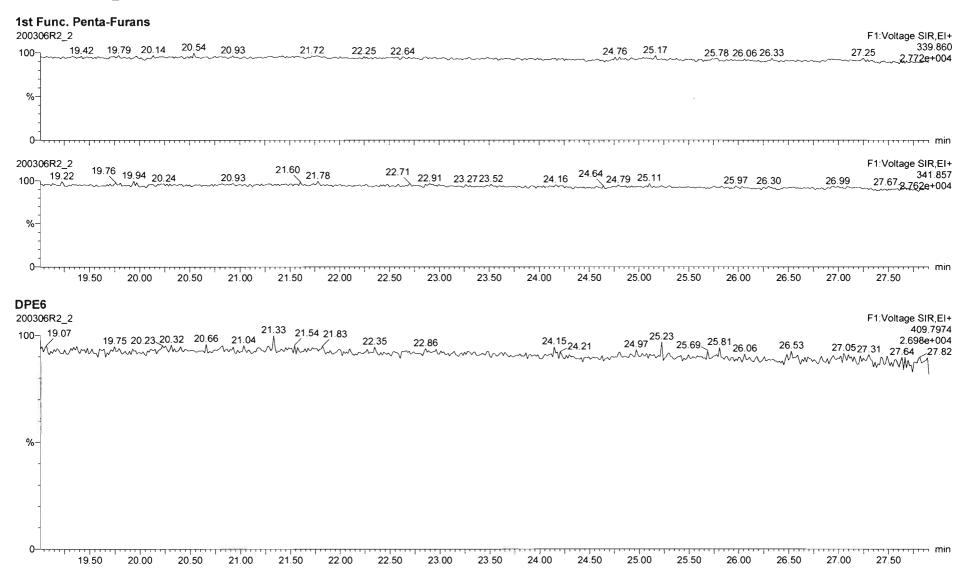
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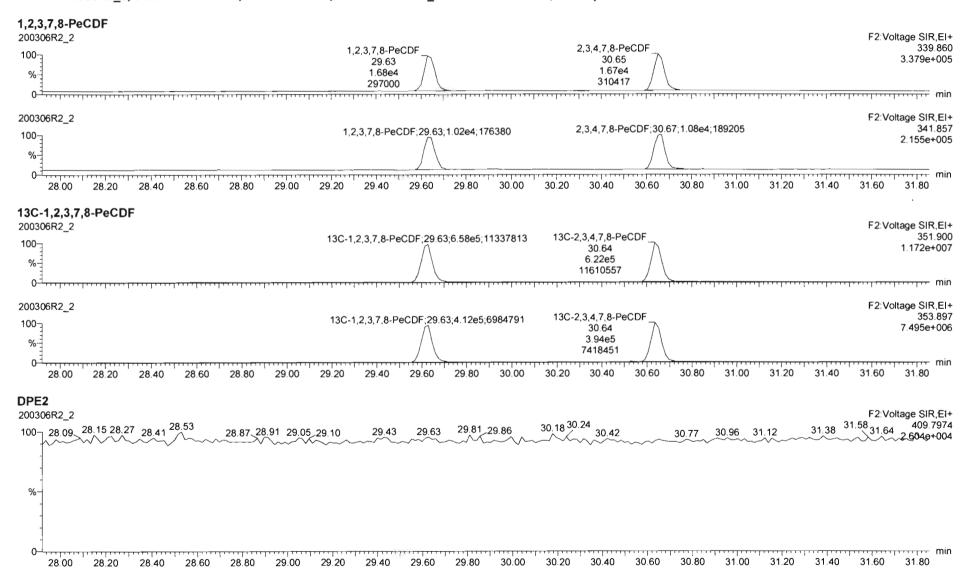


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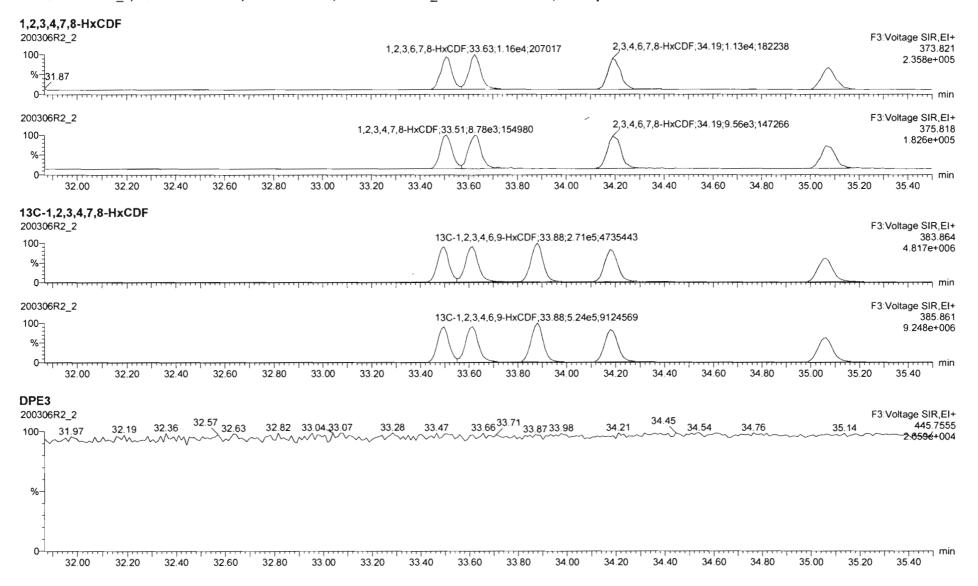
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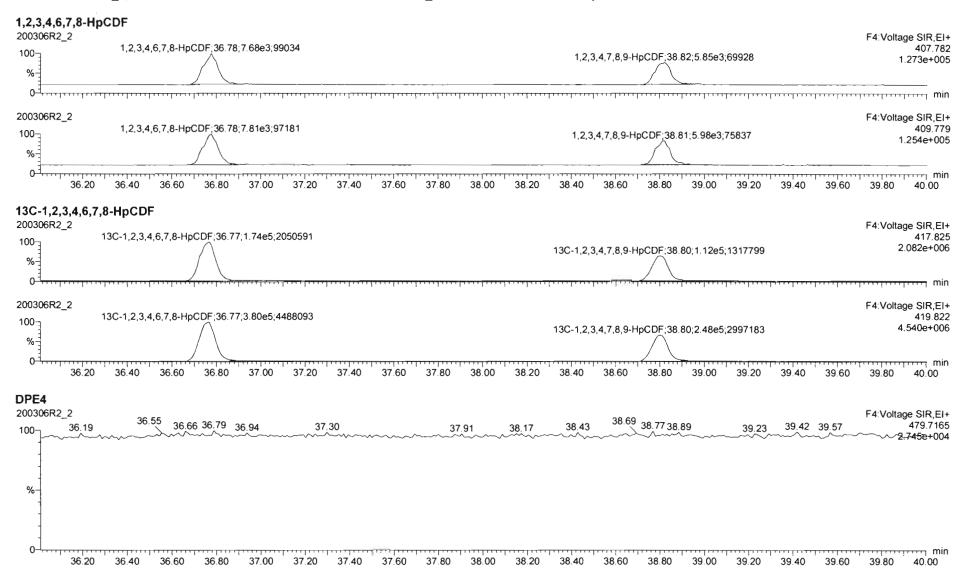
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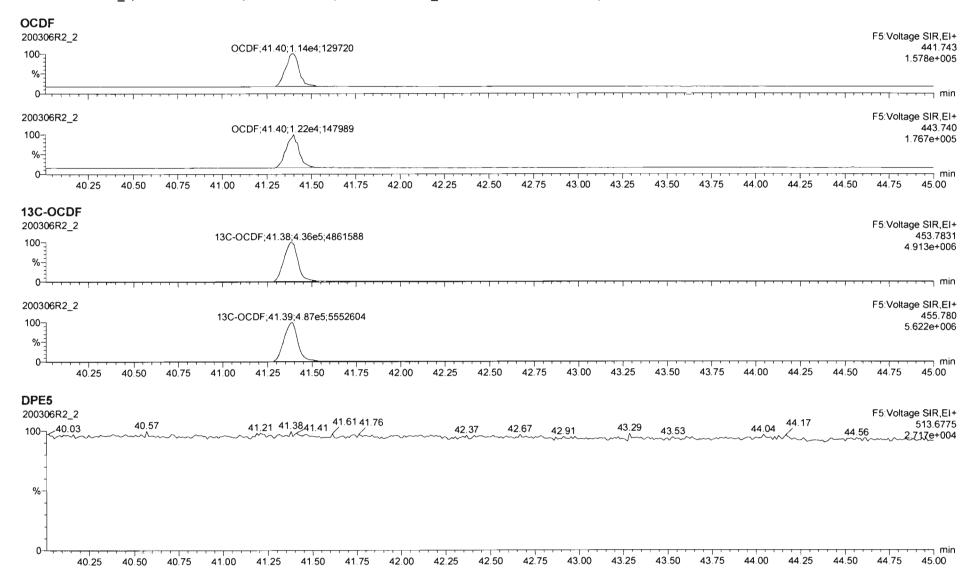
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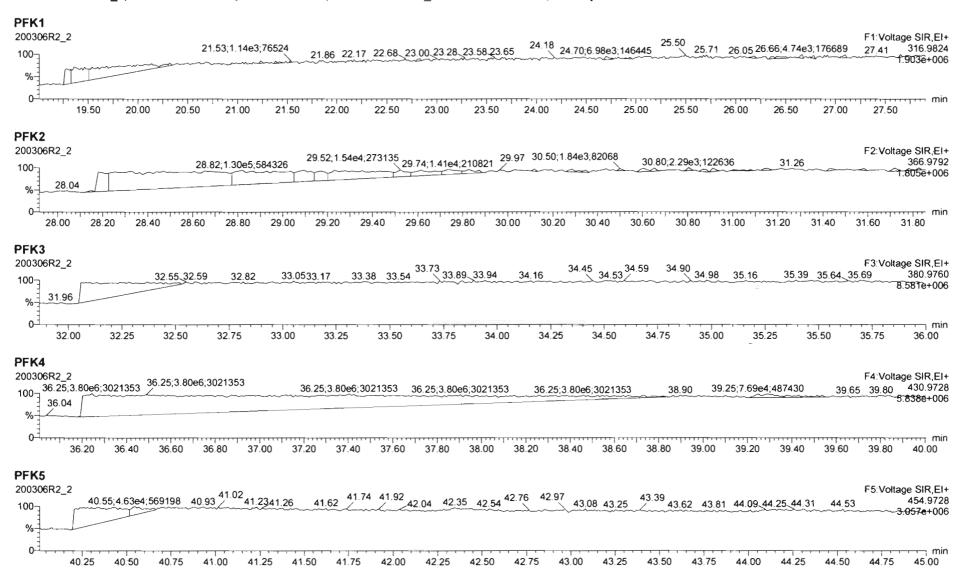
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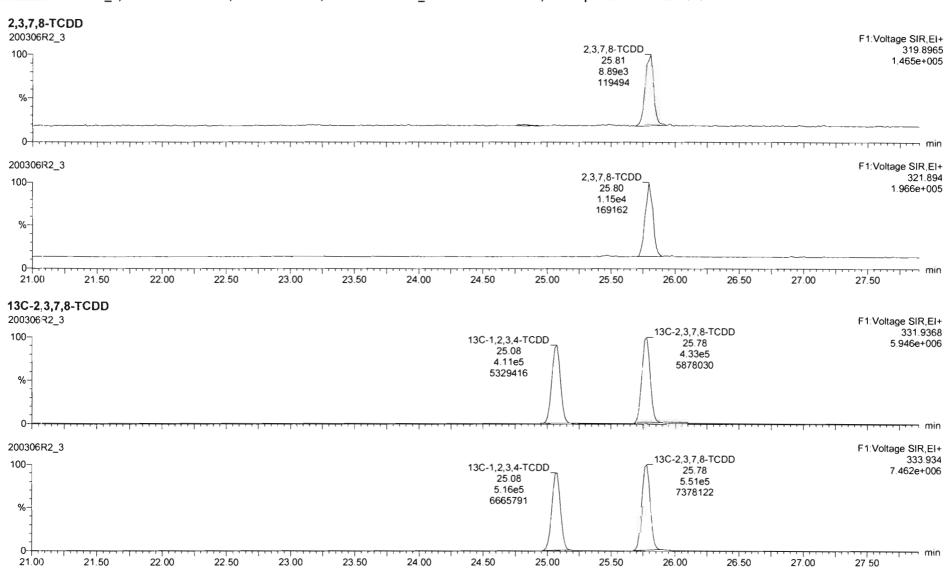
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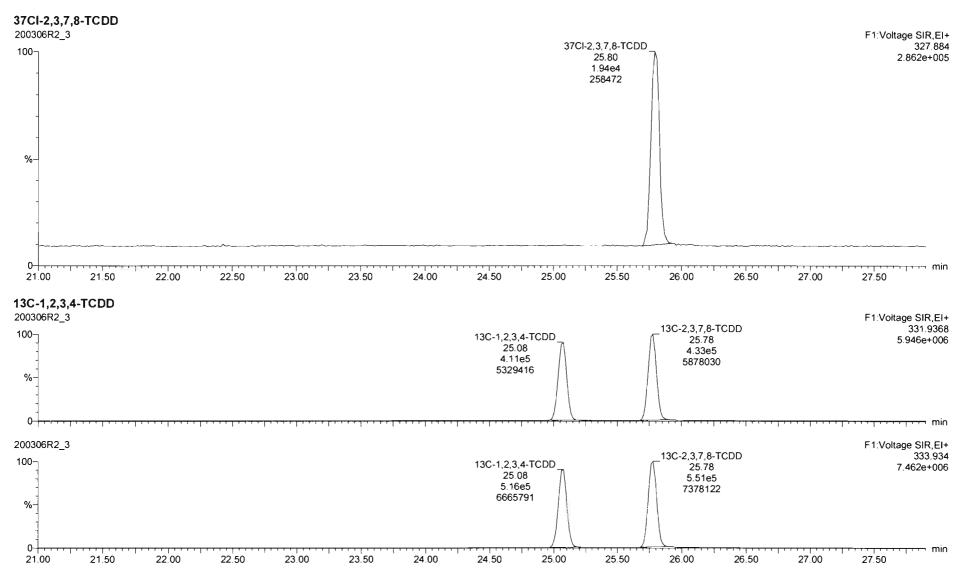
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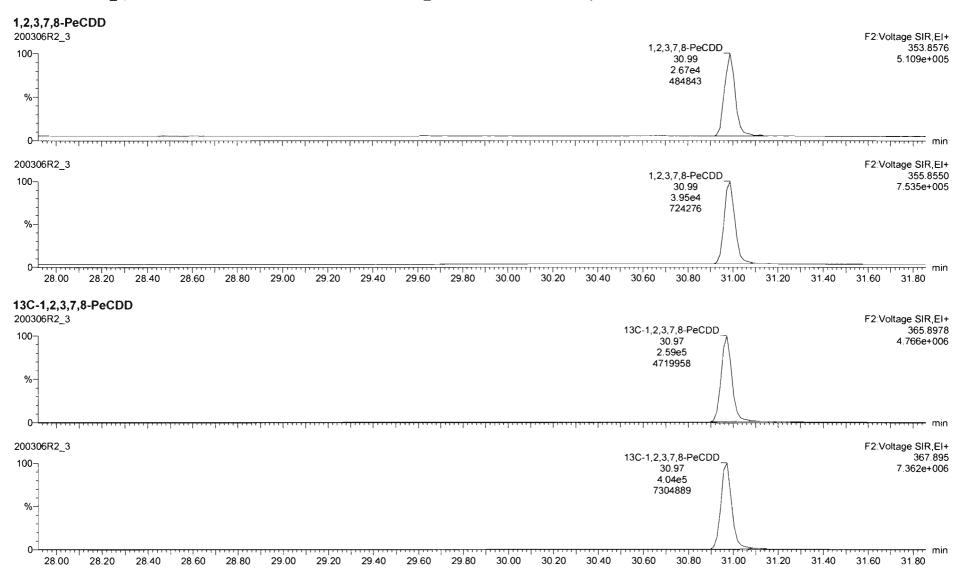
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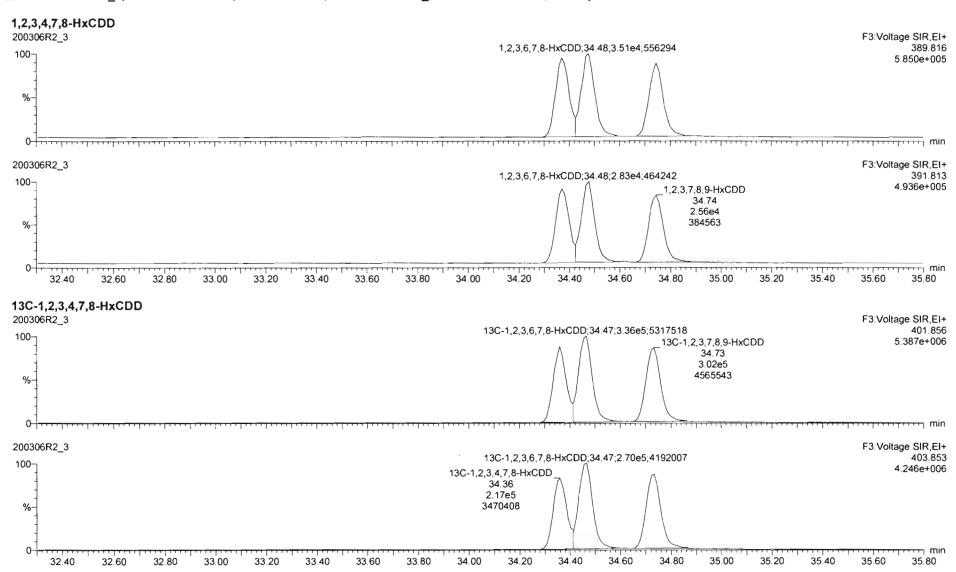
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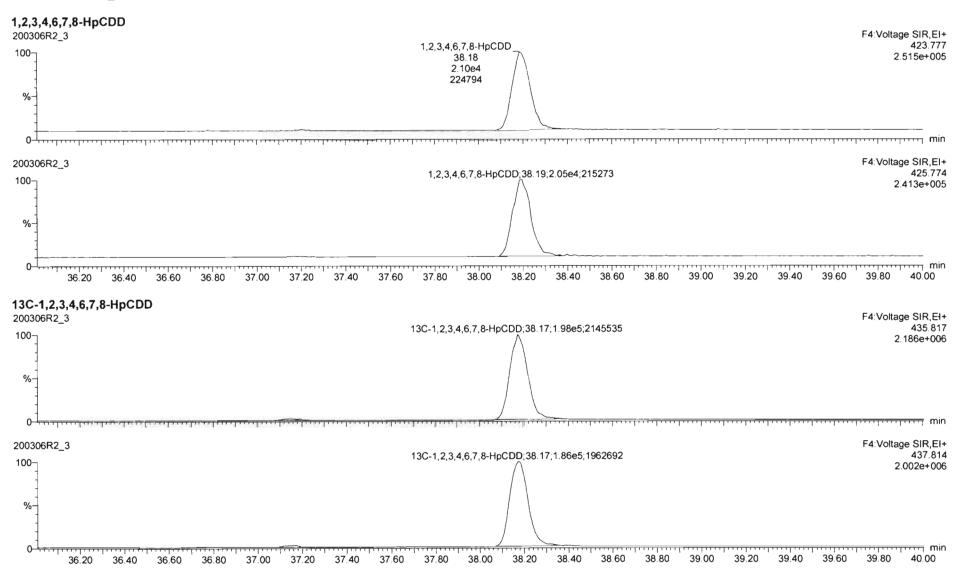
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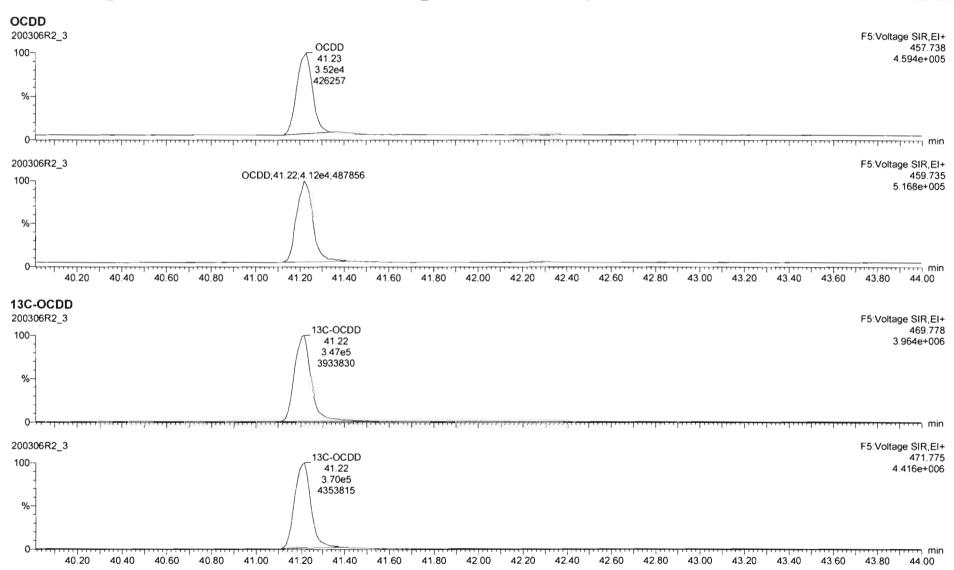


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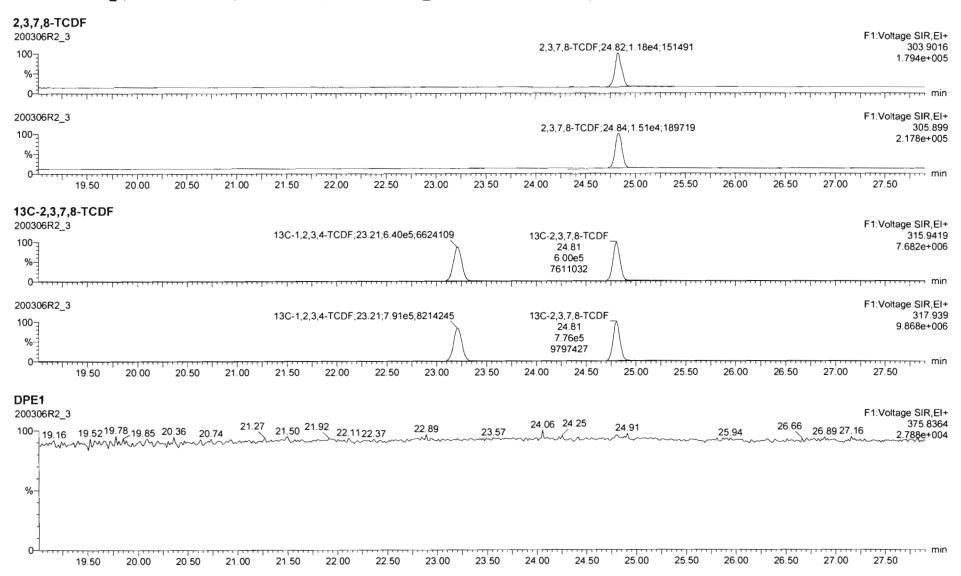
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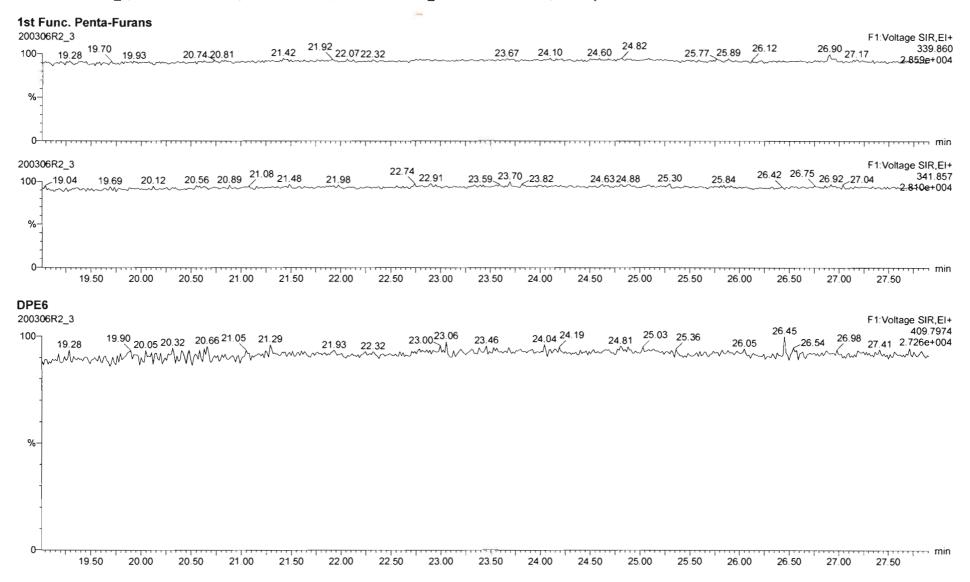
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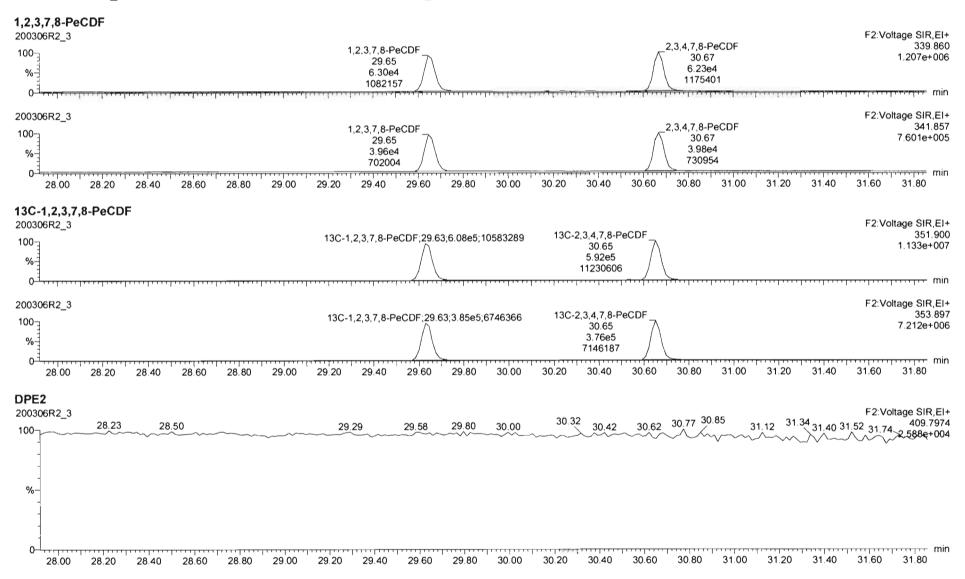
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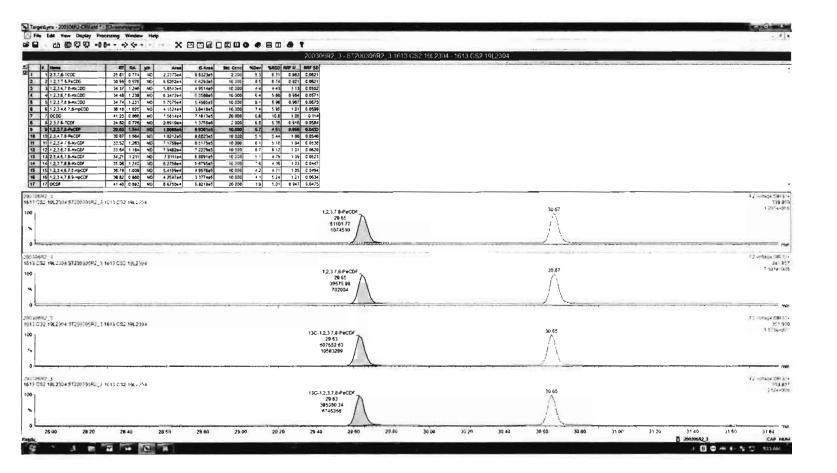


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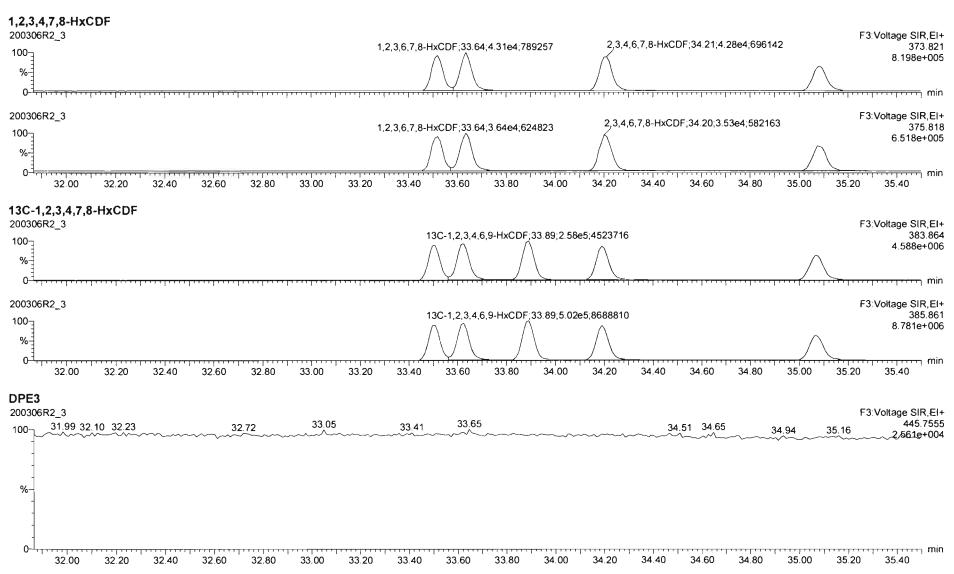
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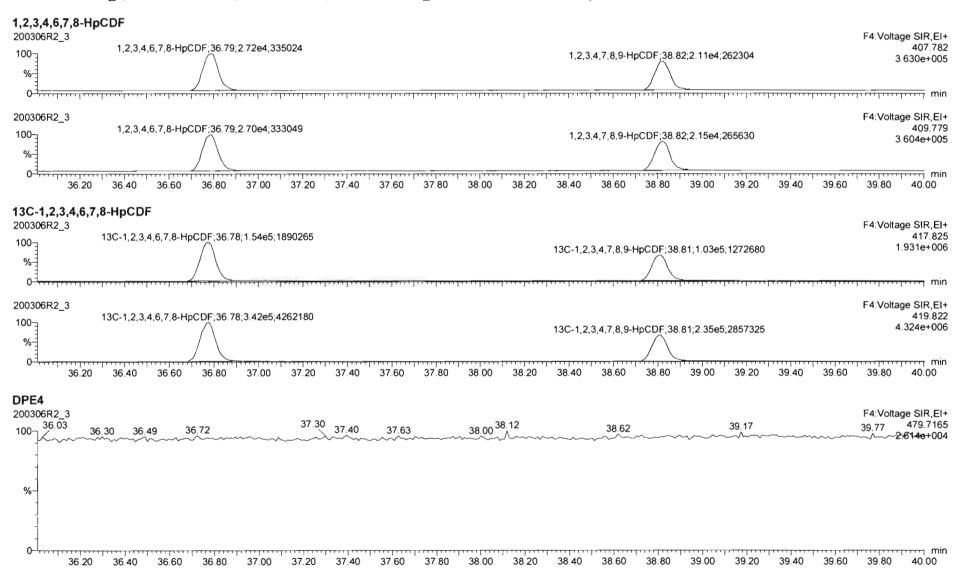
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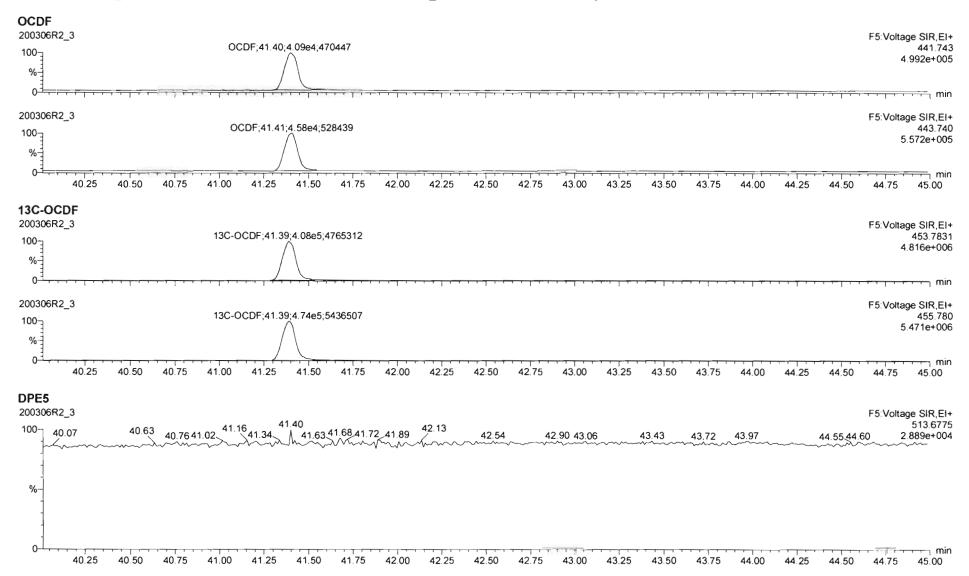
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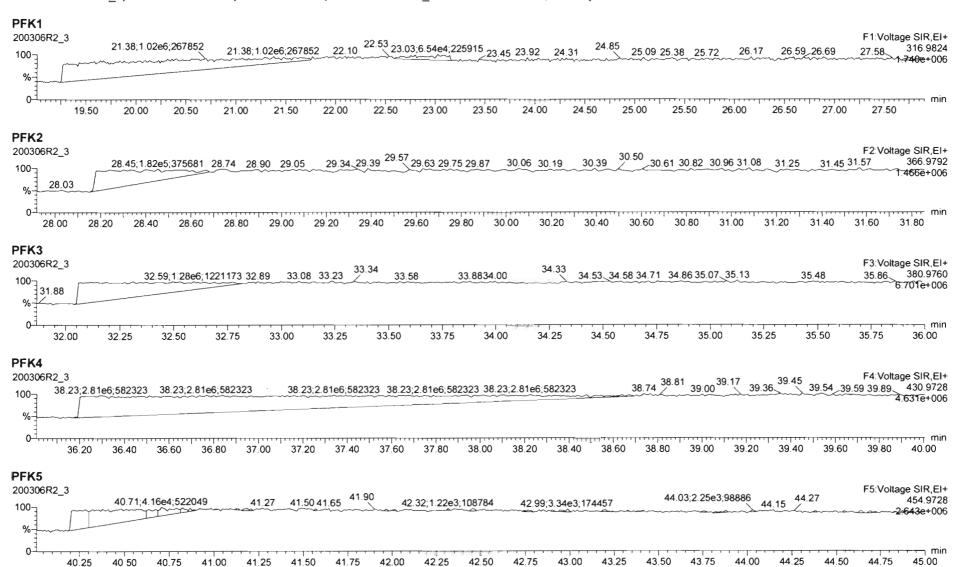
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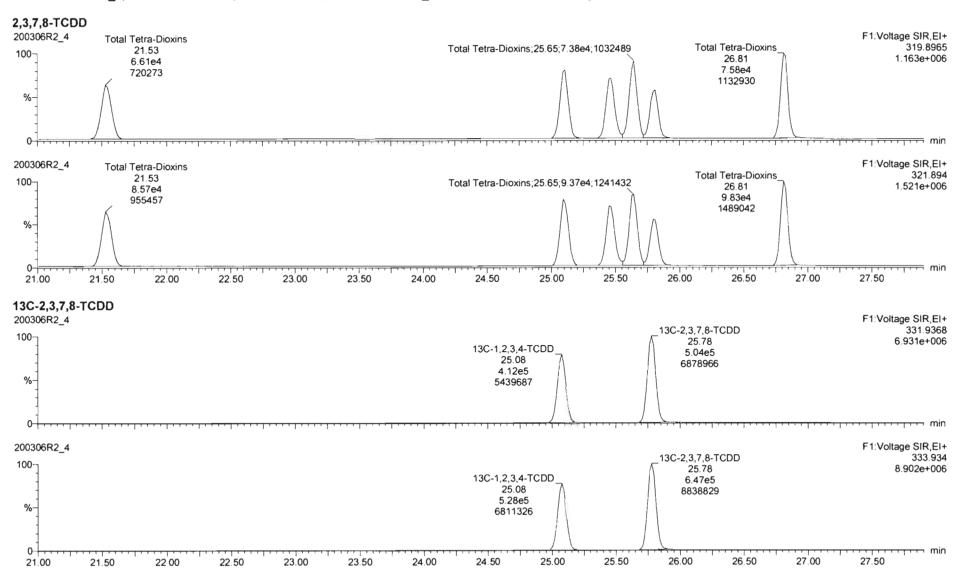
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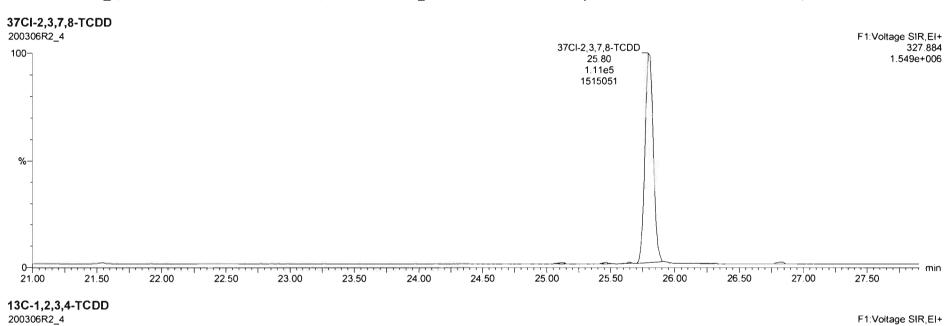
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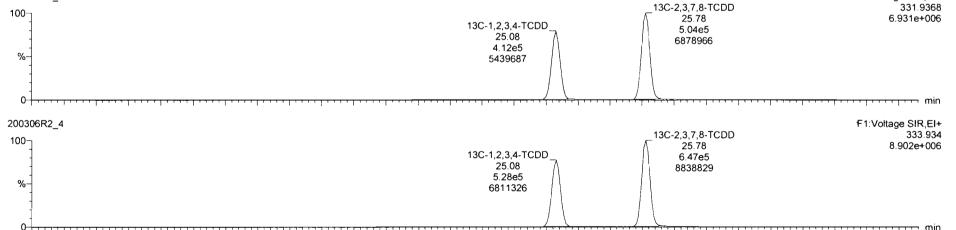
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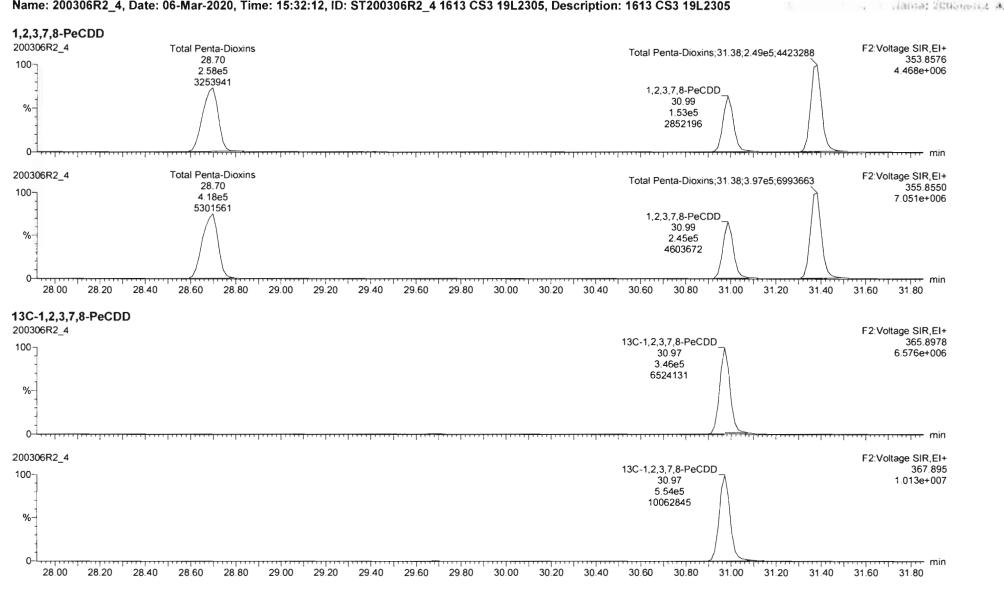
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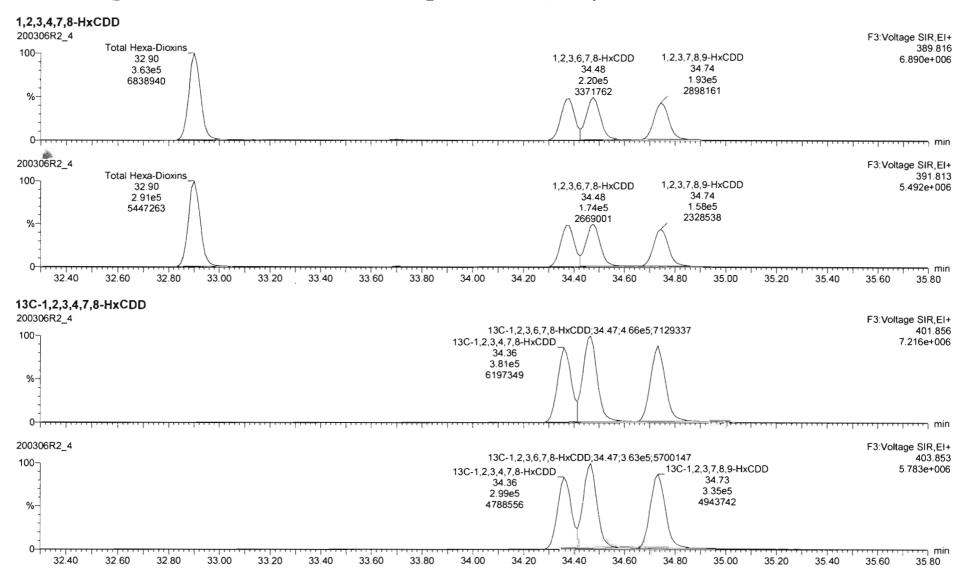
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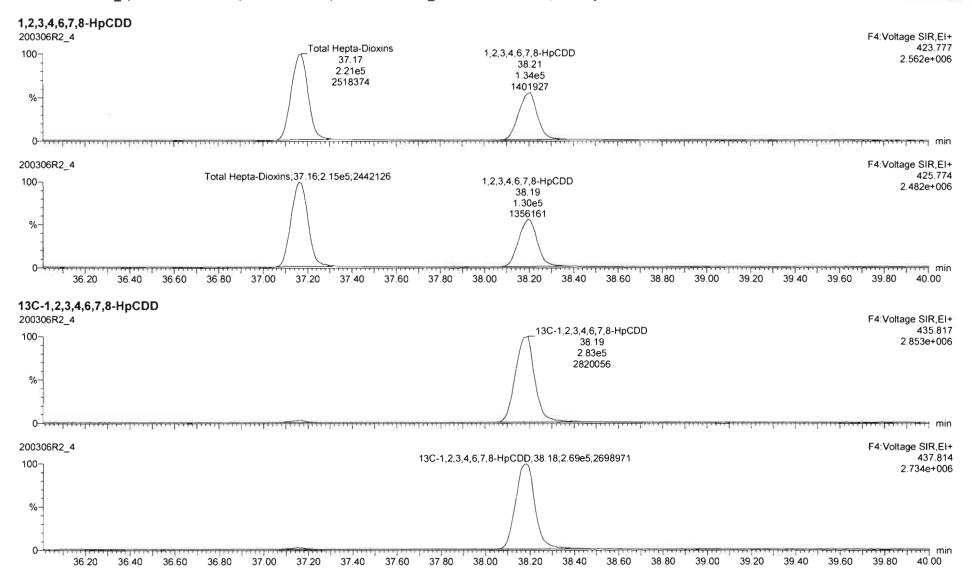
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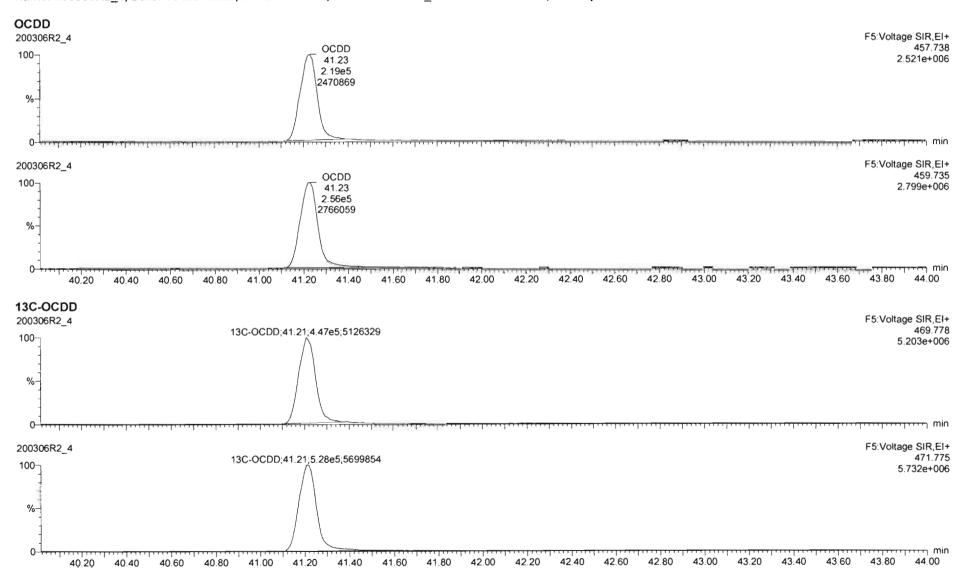
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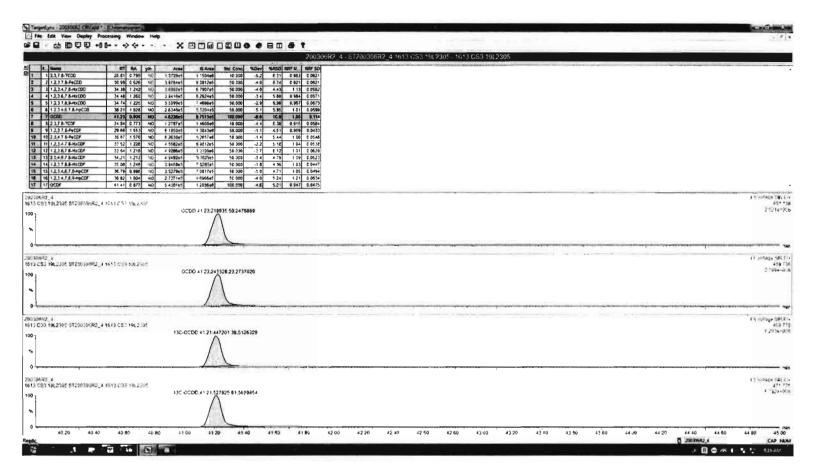


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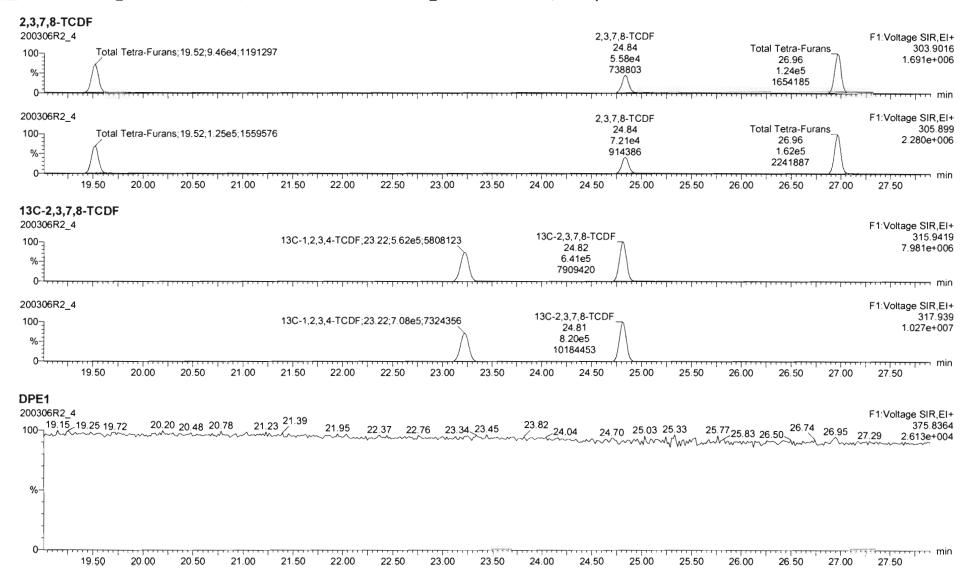


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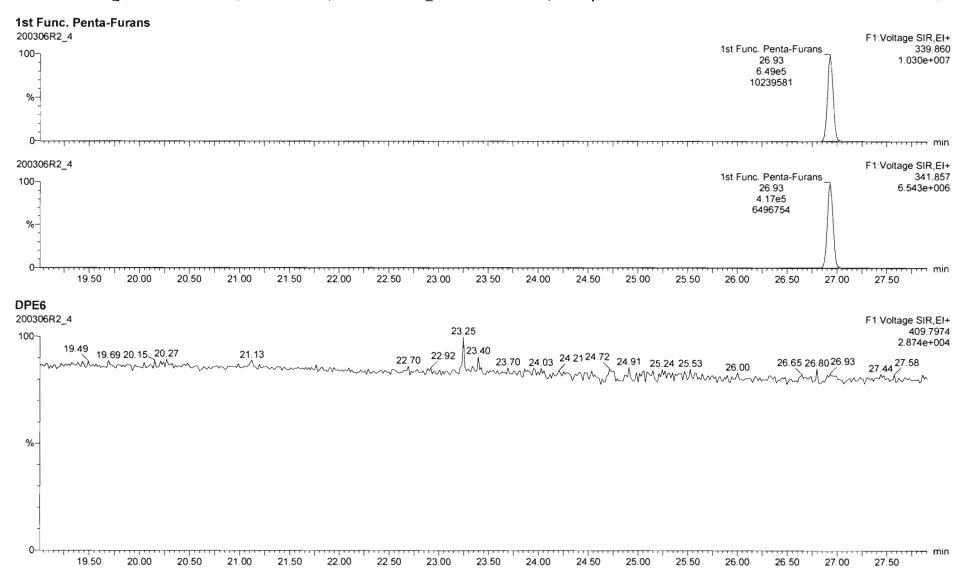
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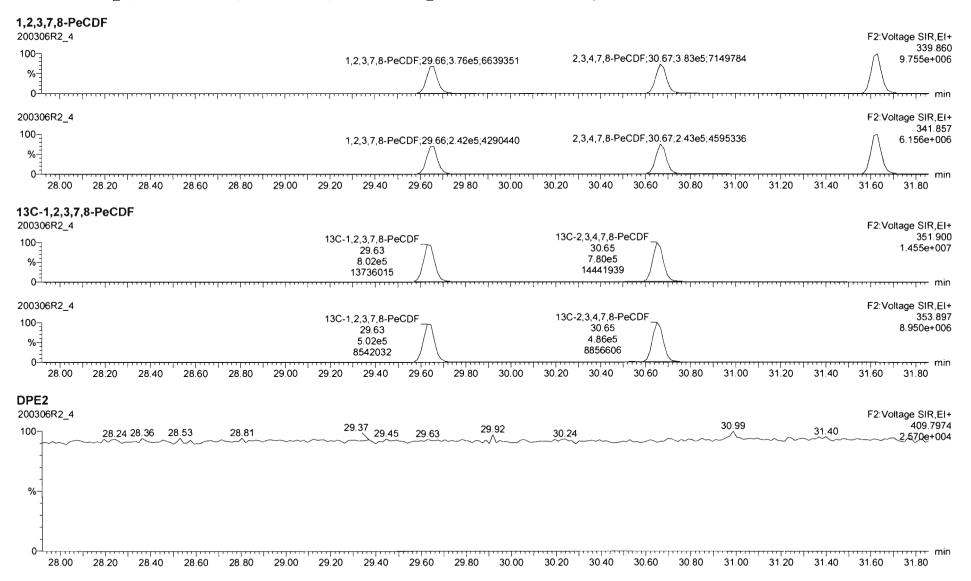


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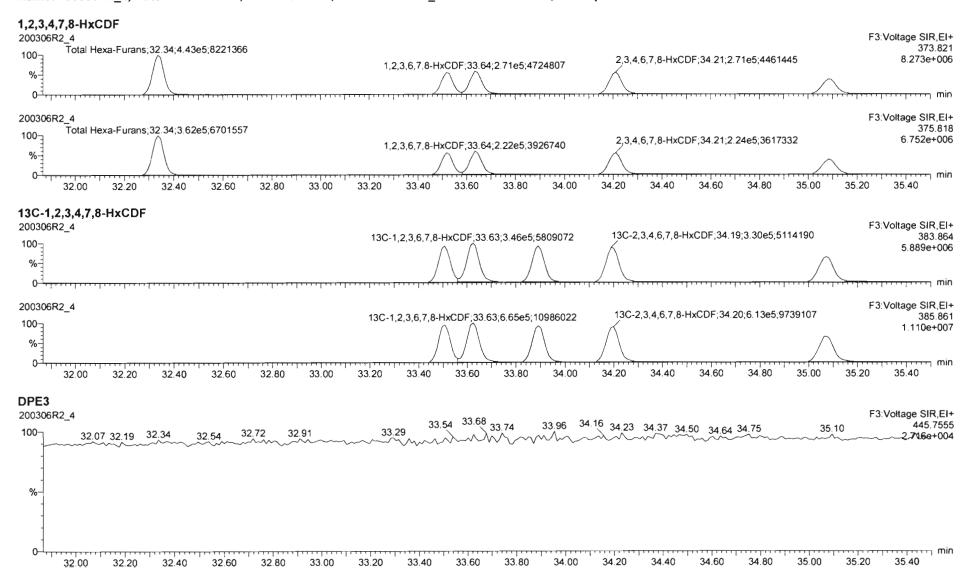


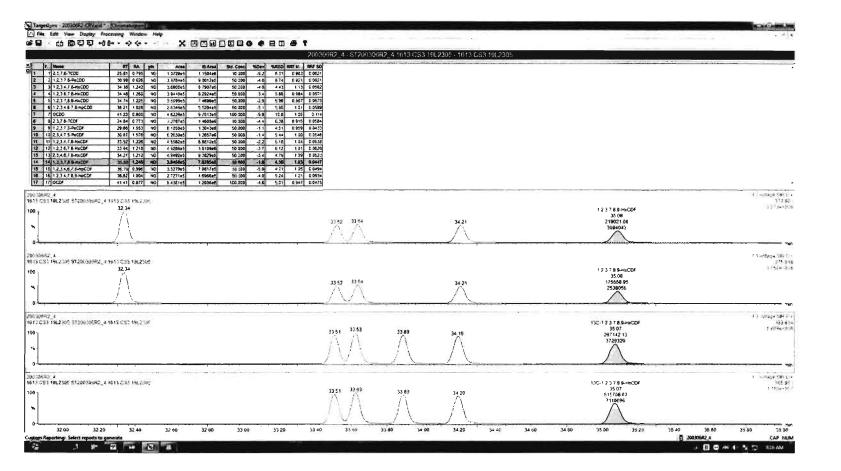
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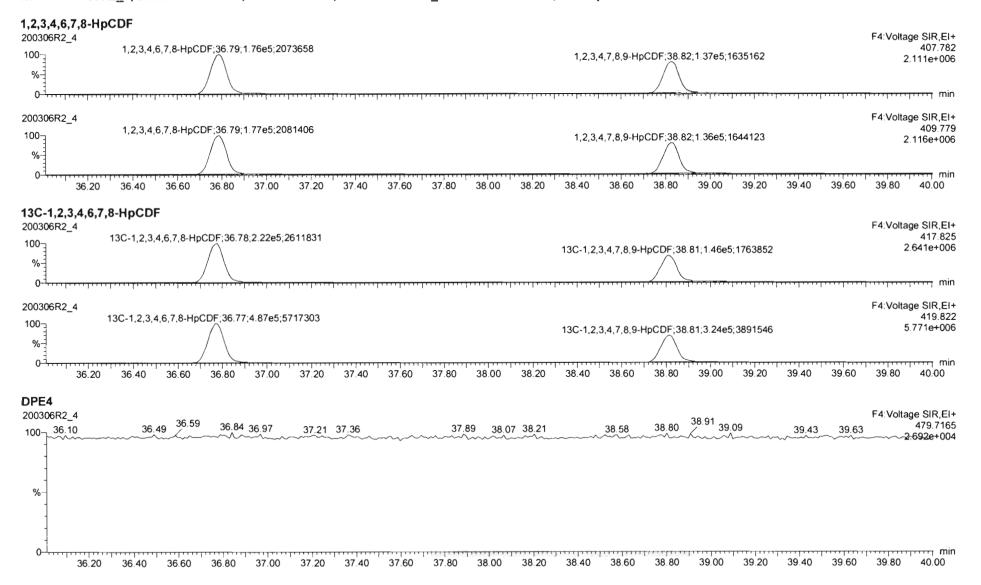
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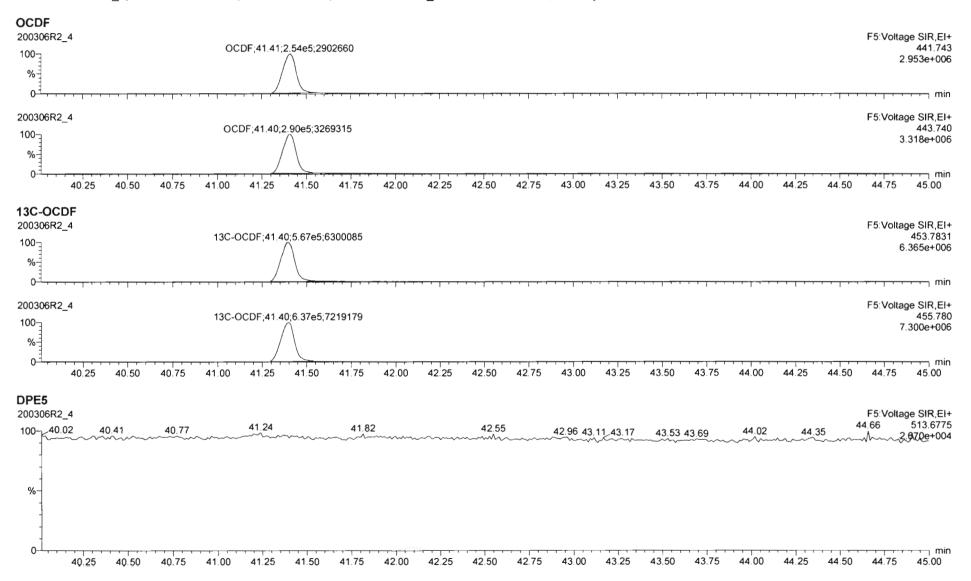


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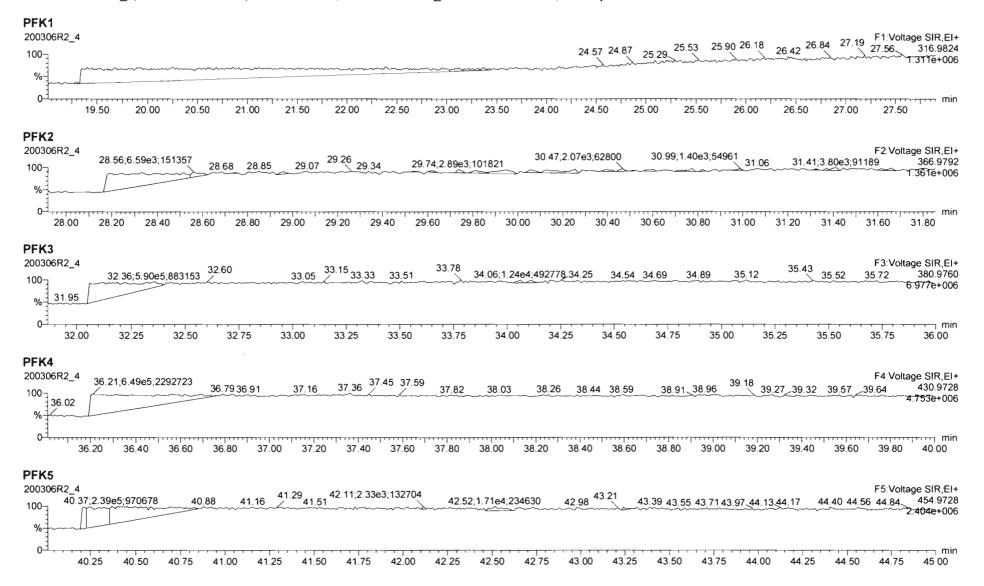


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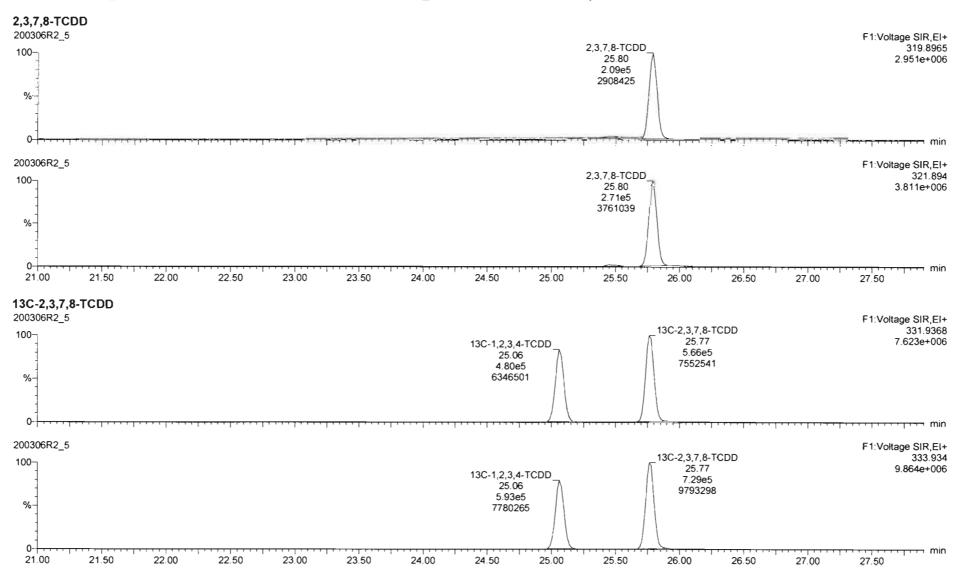


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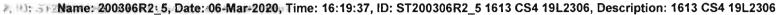
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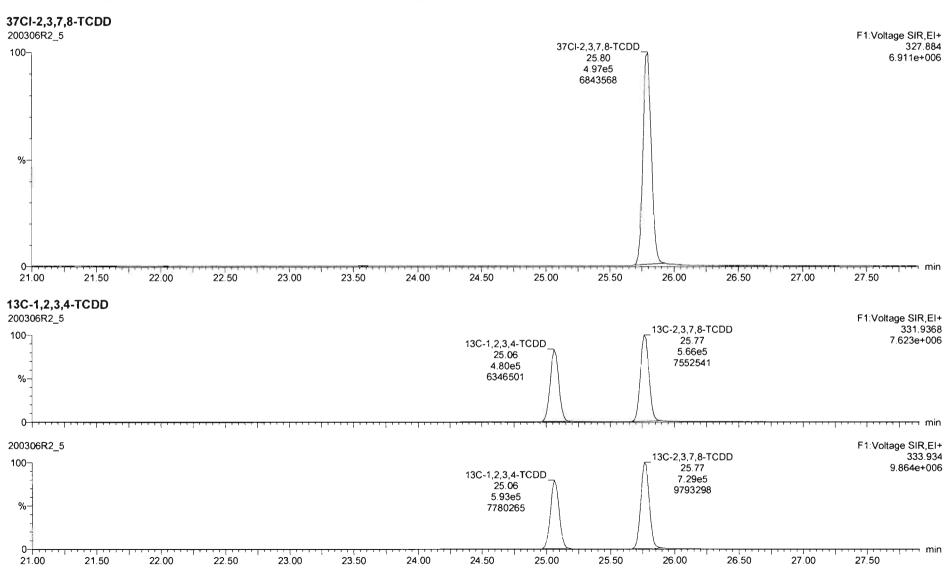
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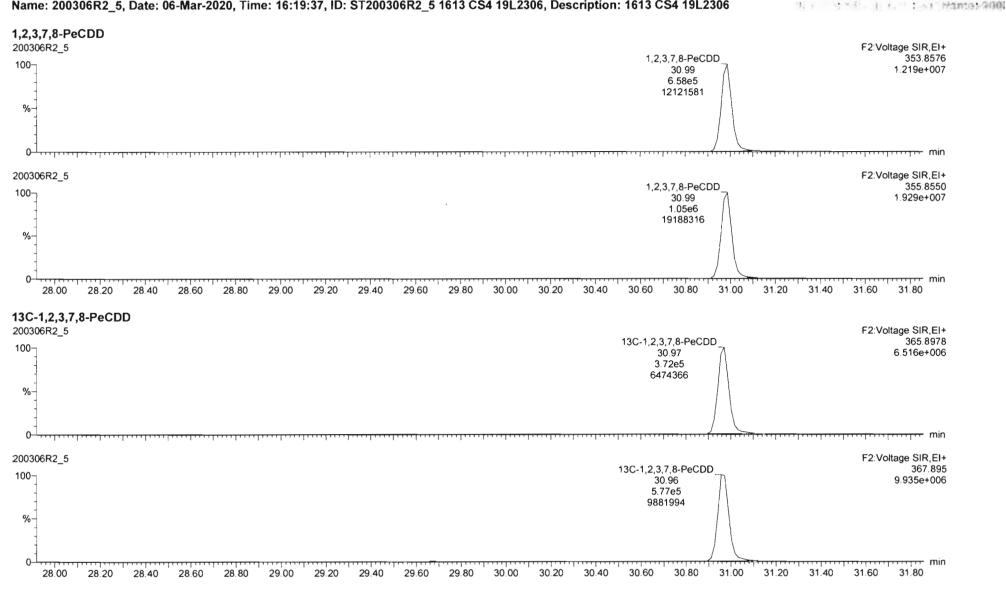




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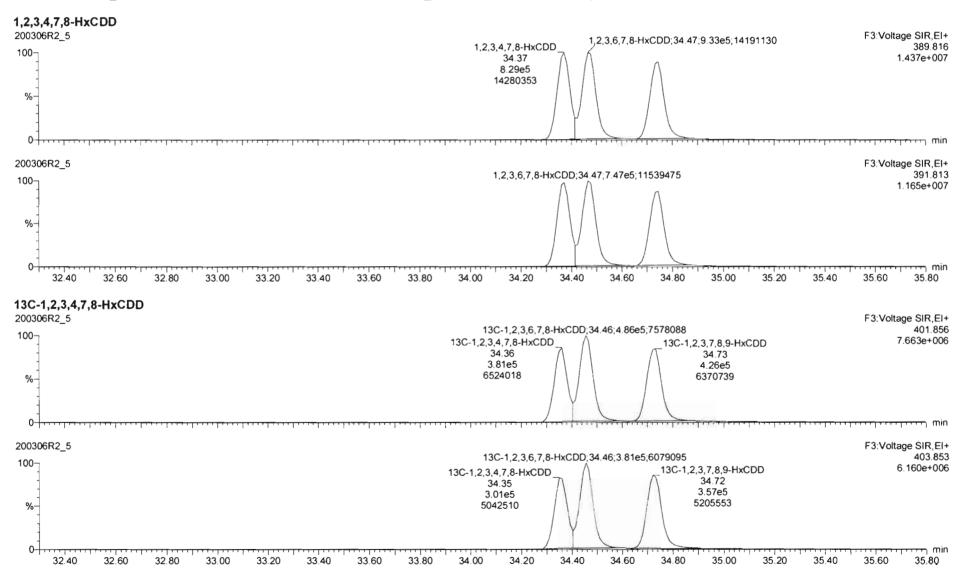
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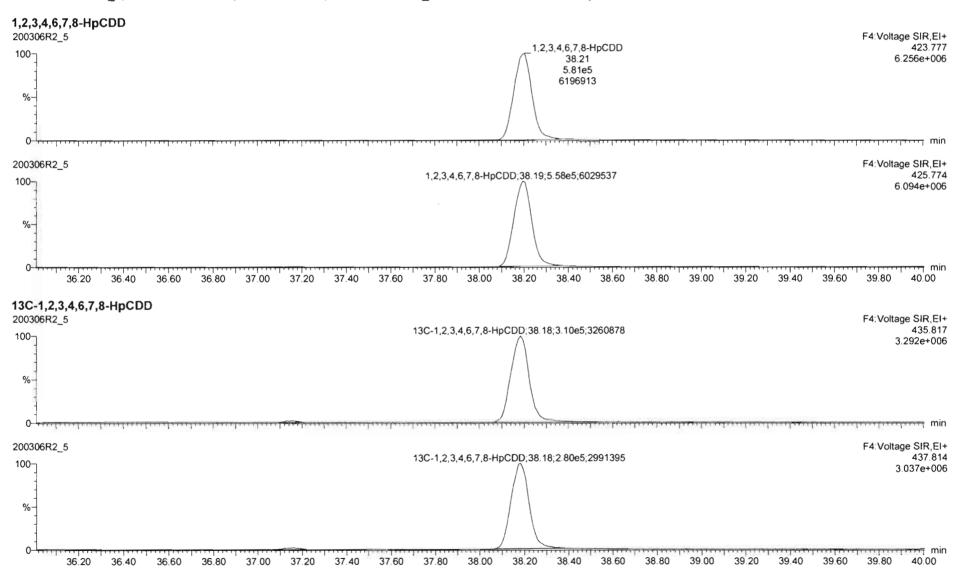


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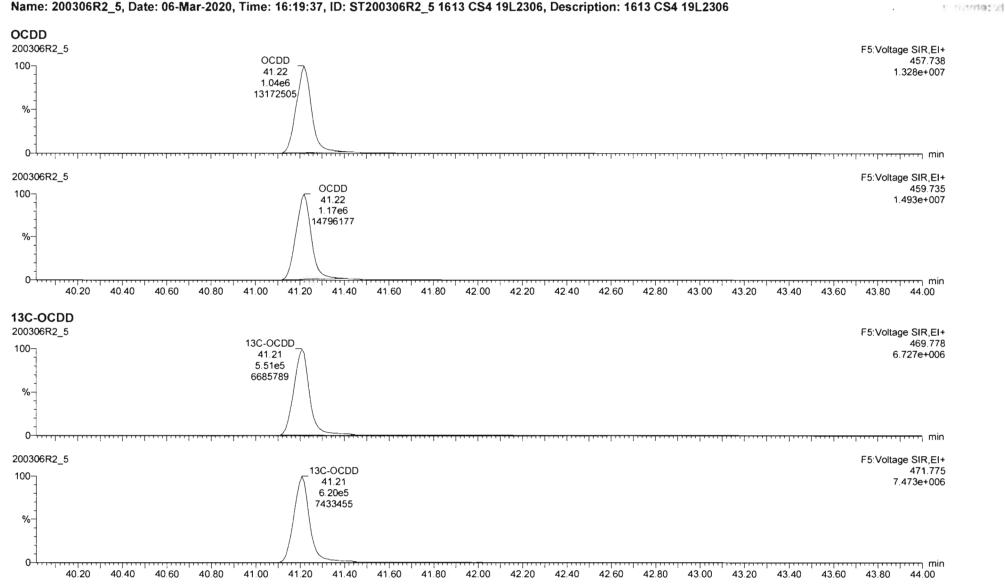


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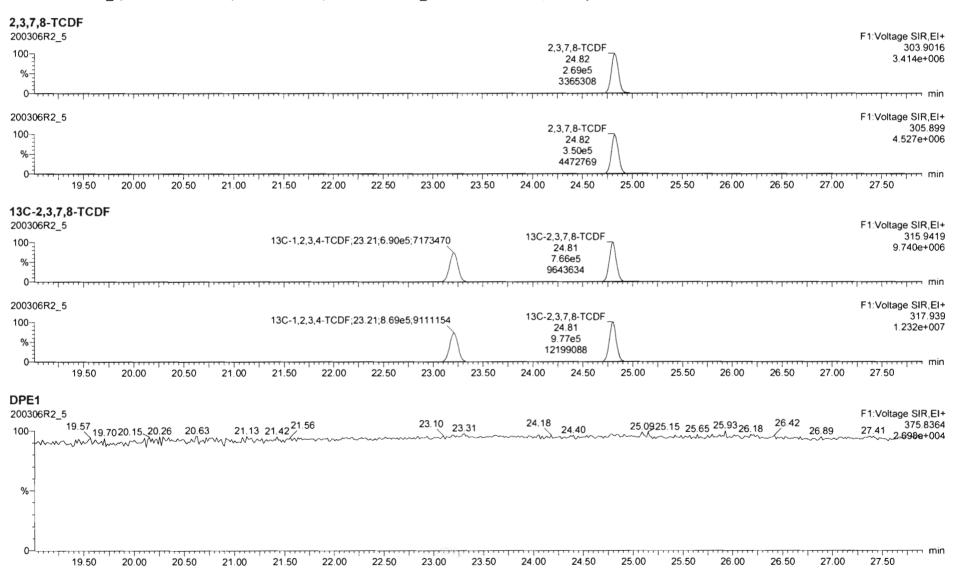




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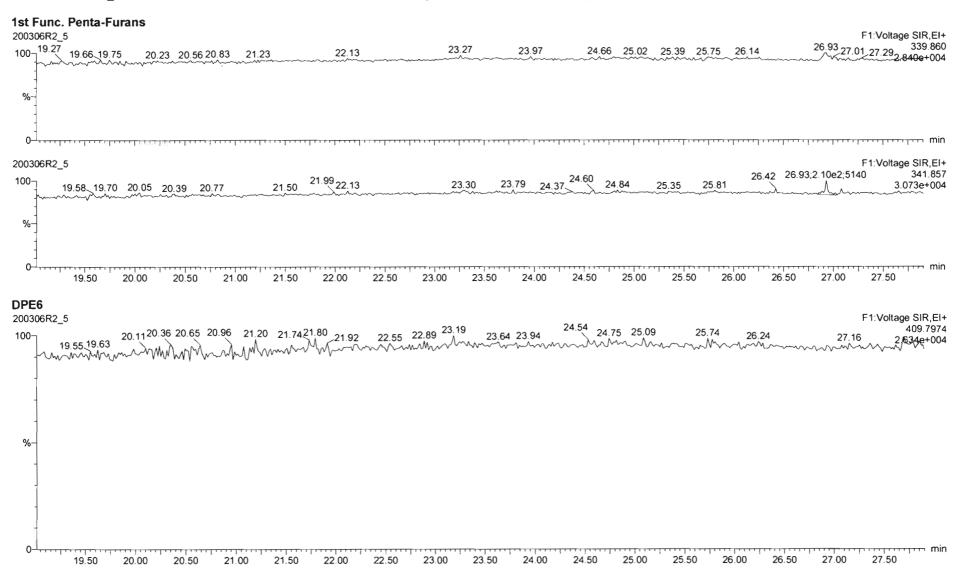
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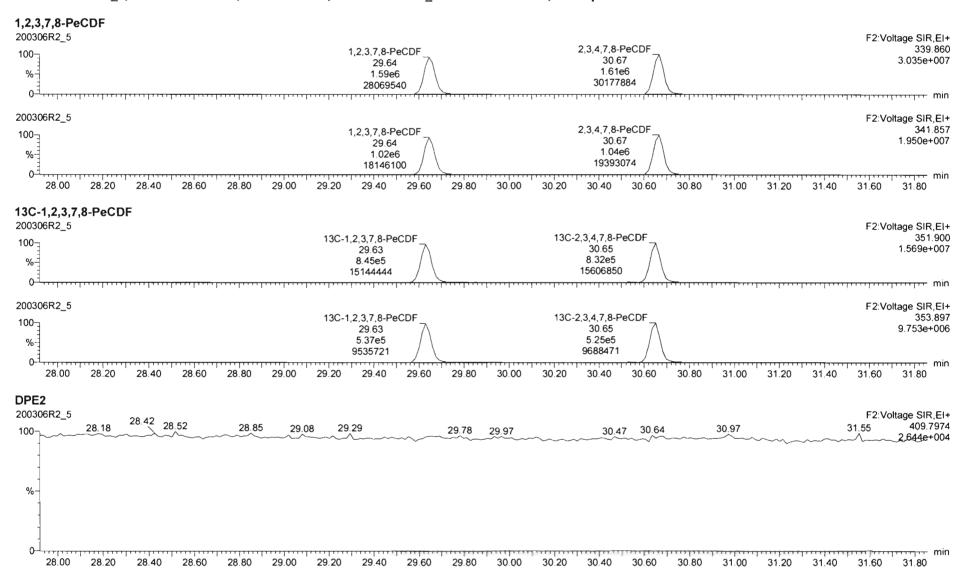
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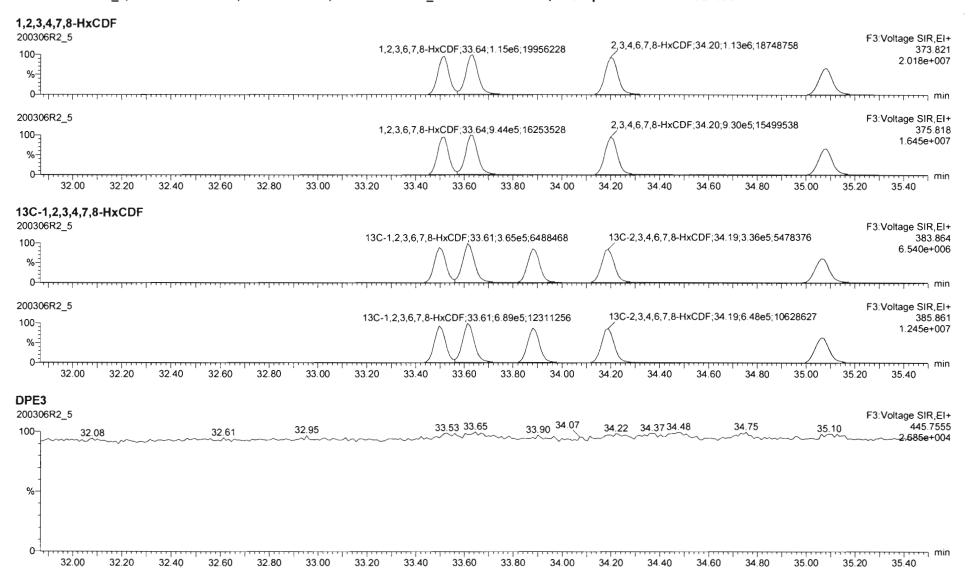
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Last Altered: Printed: Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

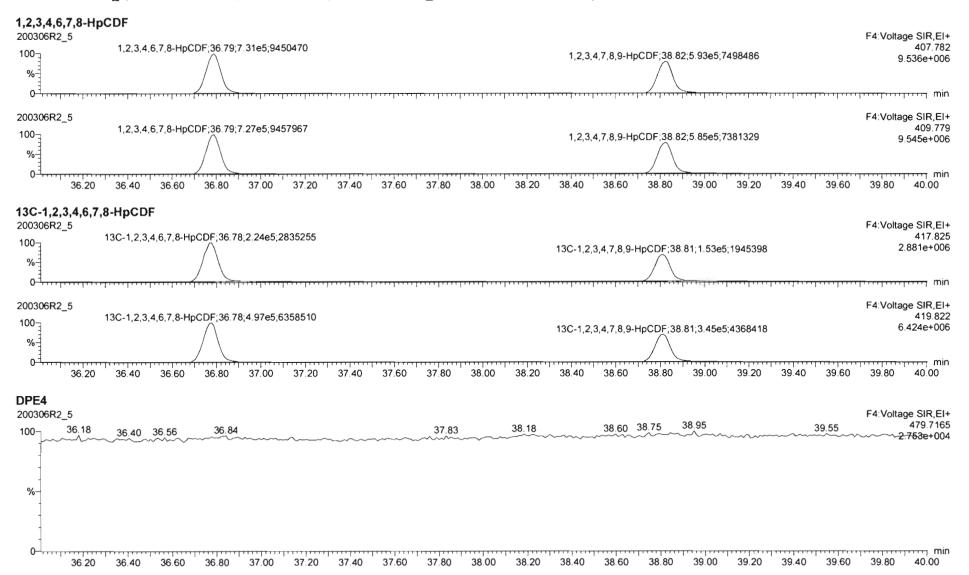
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Last Altered: Printed: Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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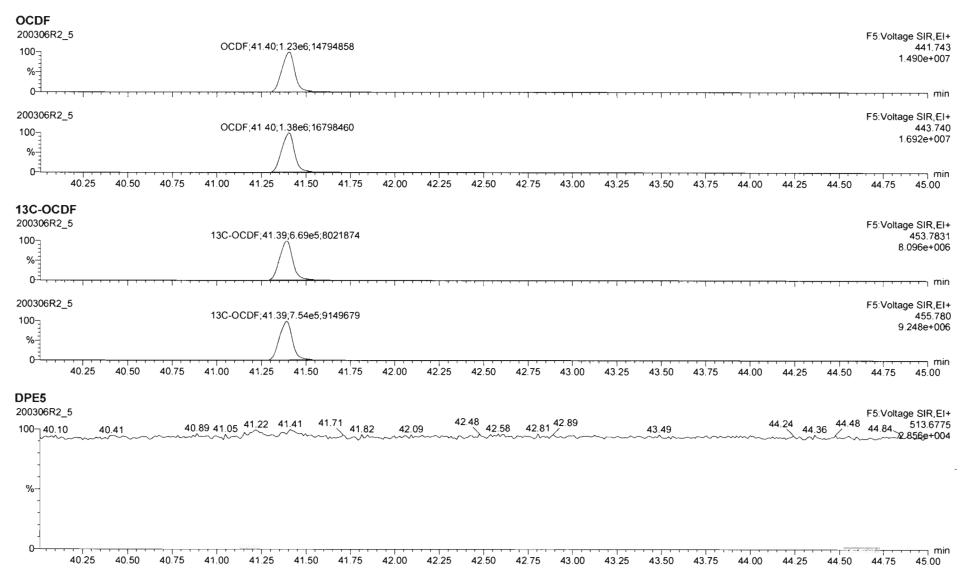


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Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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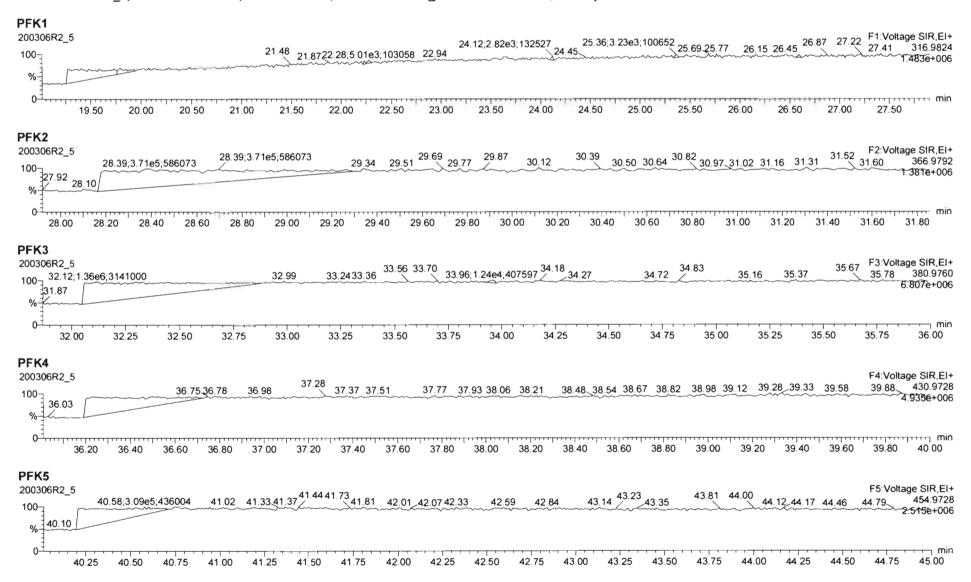


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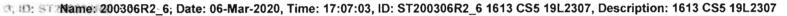
Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

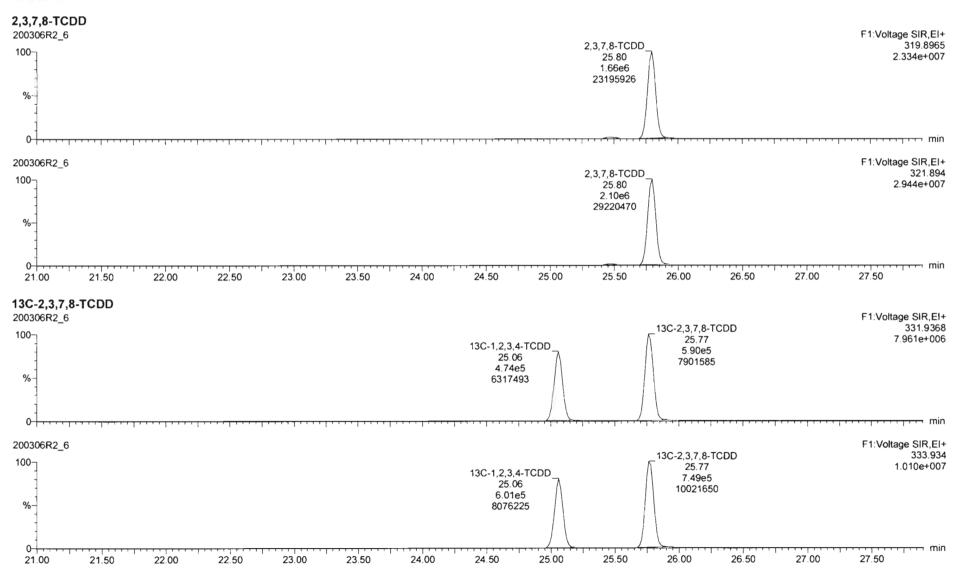
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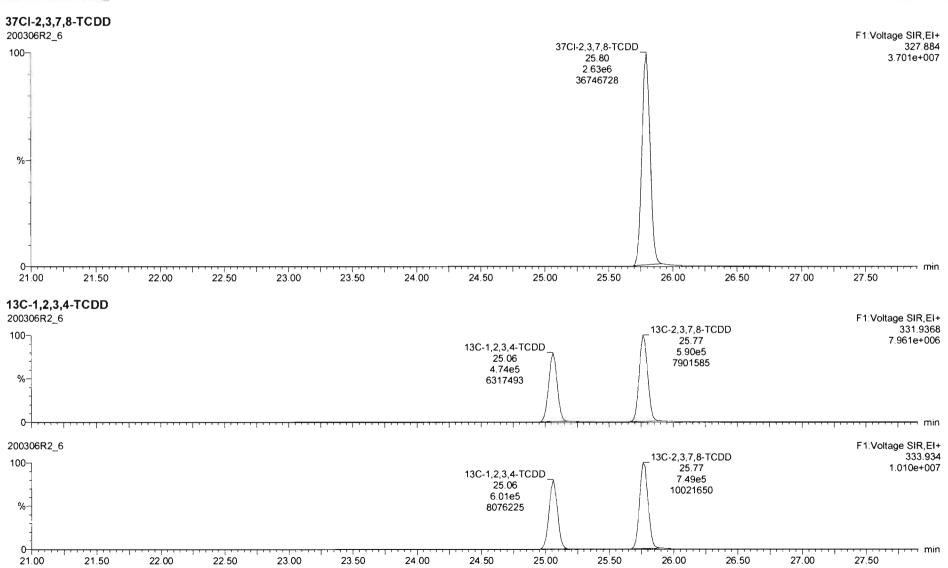
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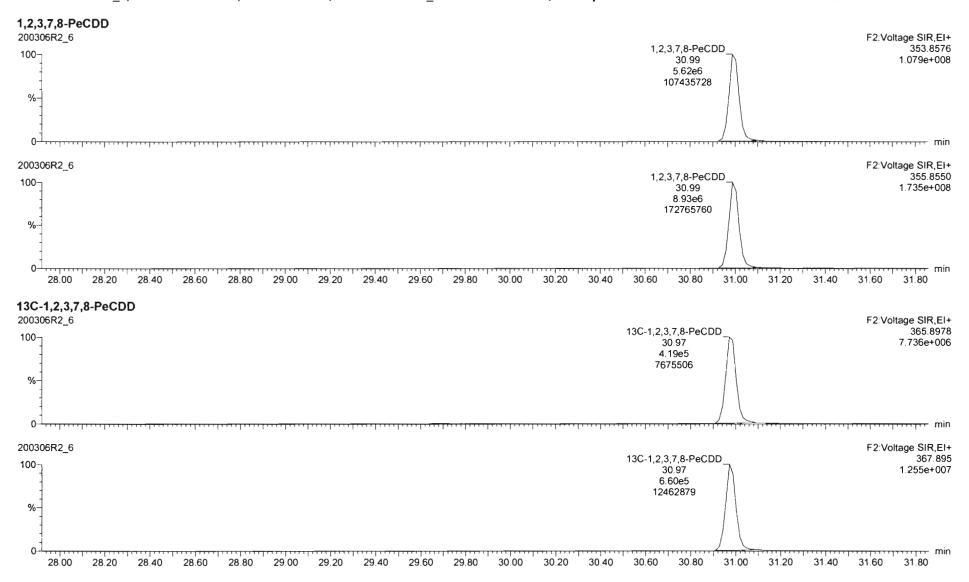


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Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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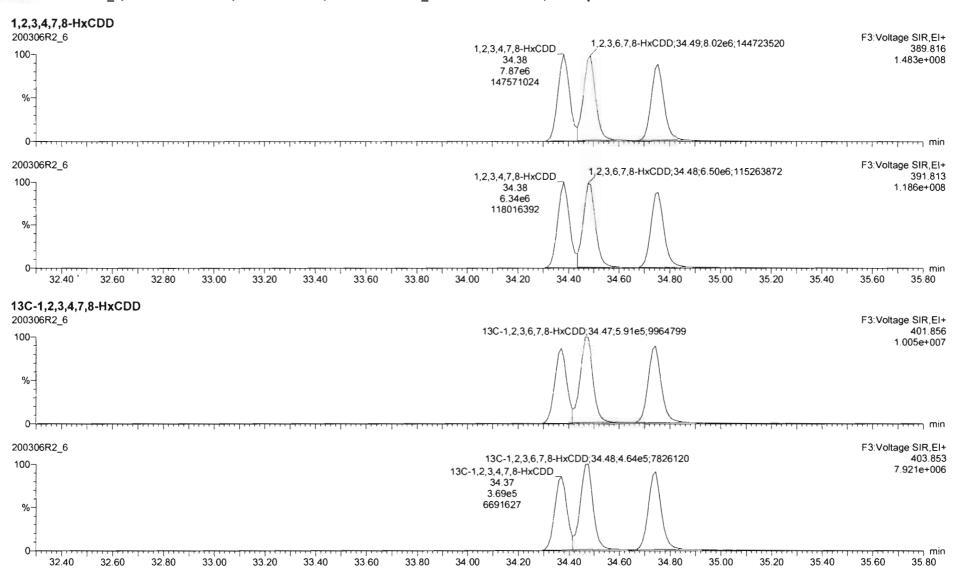
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∞ Name: 200306R2_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307



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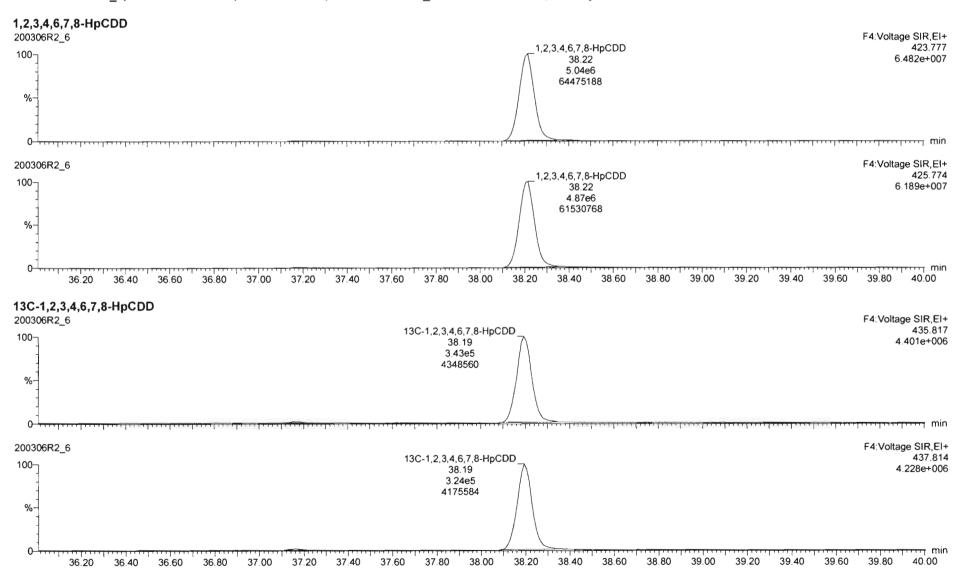
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Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

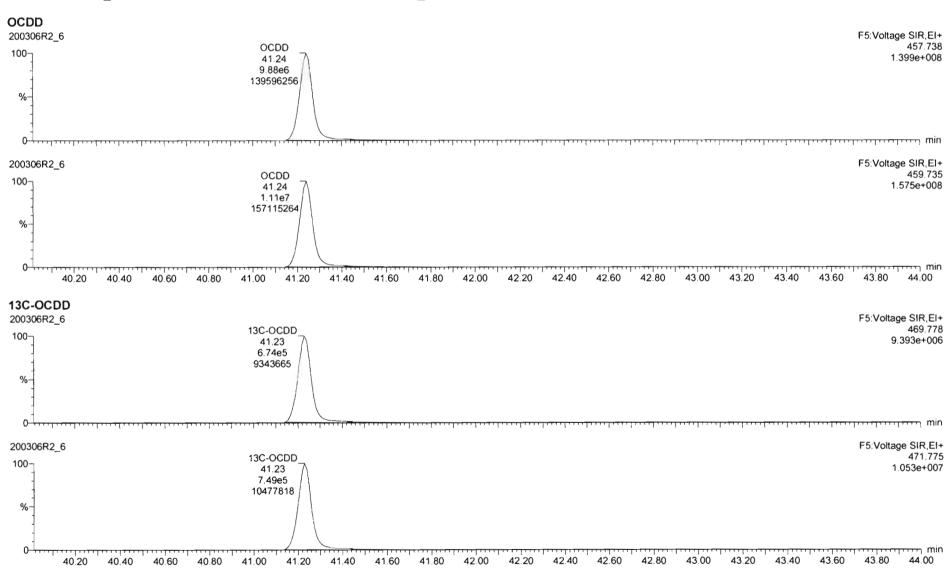
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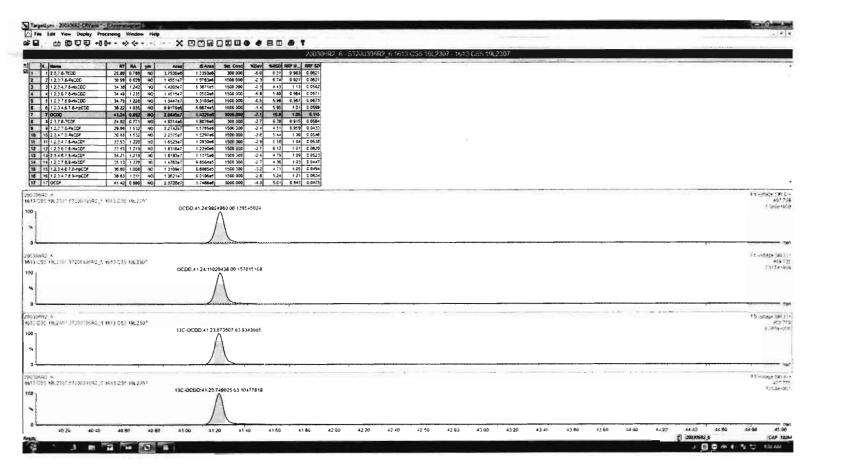


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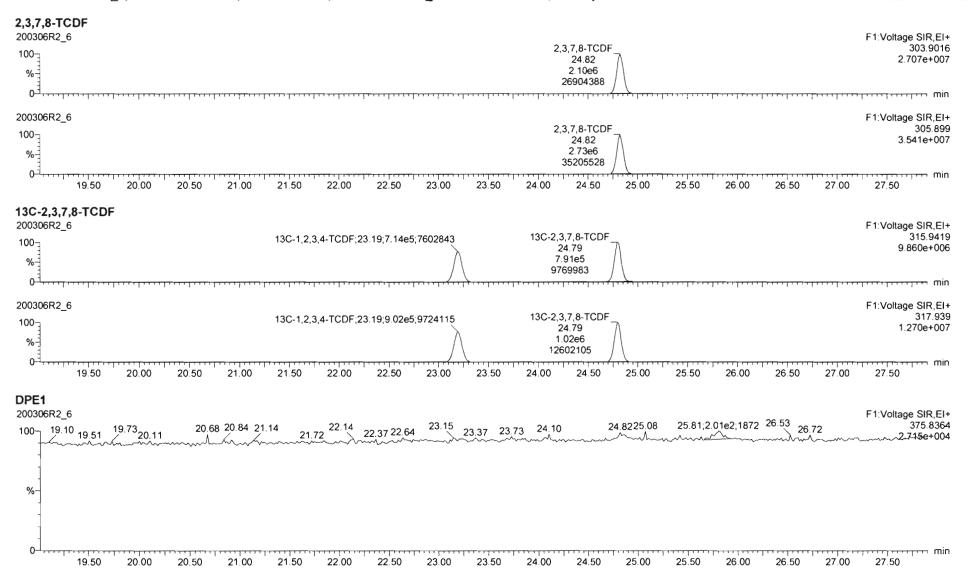


Work Order 1903654 Page 1097 of 1184

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Last Altered: Printed: Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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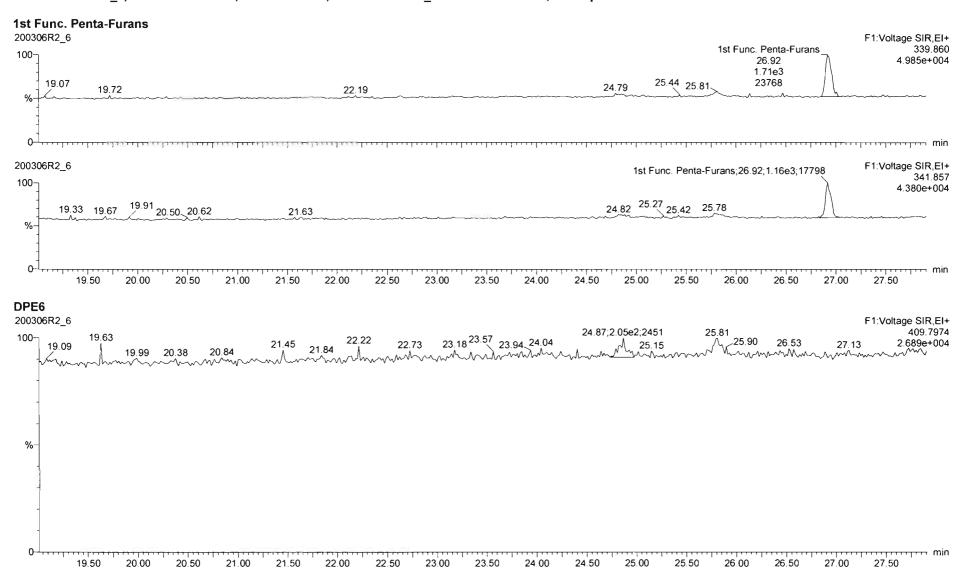


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Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

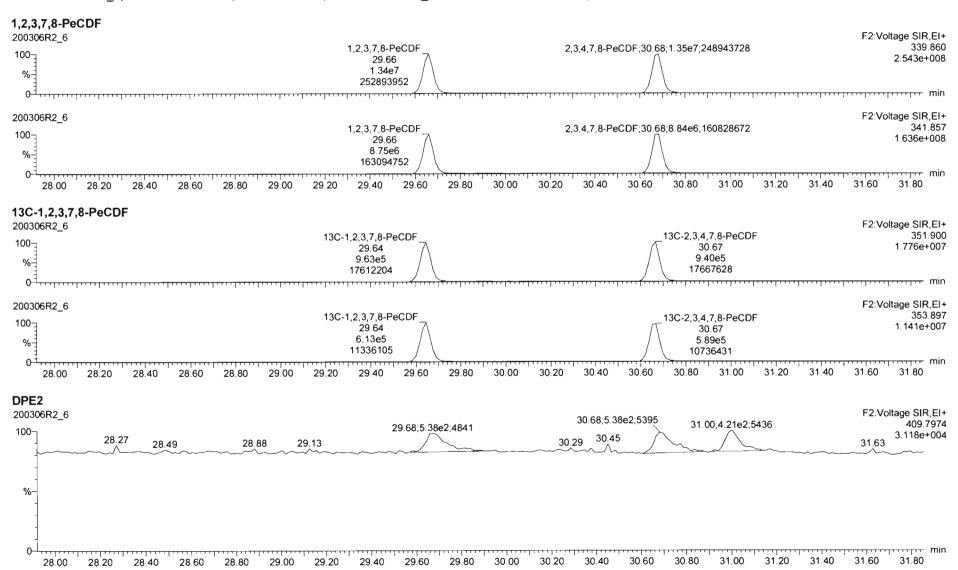
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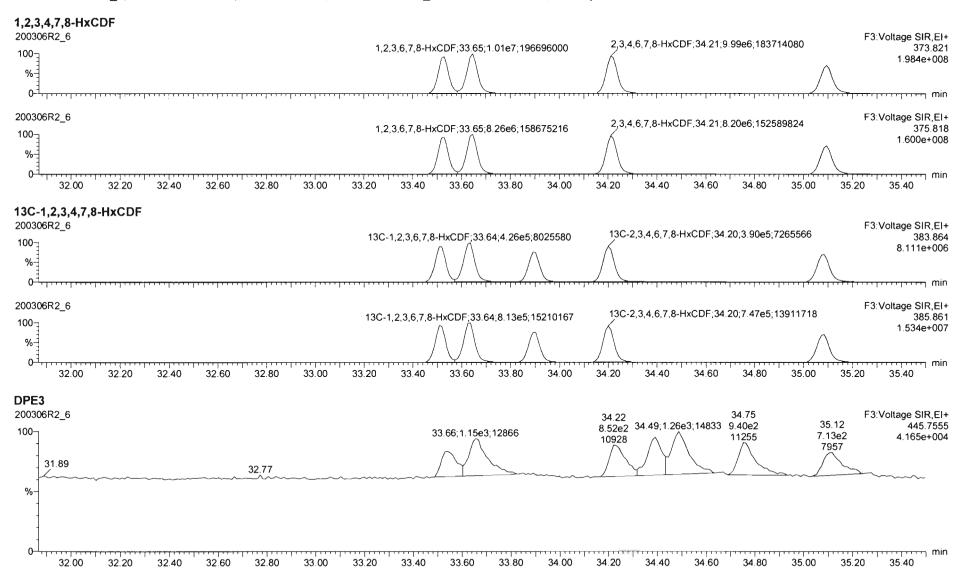


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Monday, March 09, 2020 08:23:06 Pacific Daylight Time Monday, March 09, 2020 08:23:18 Pacific Daylight Time

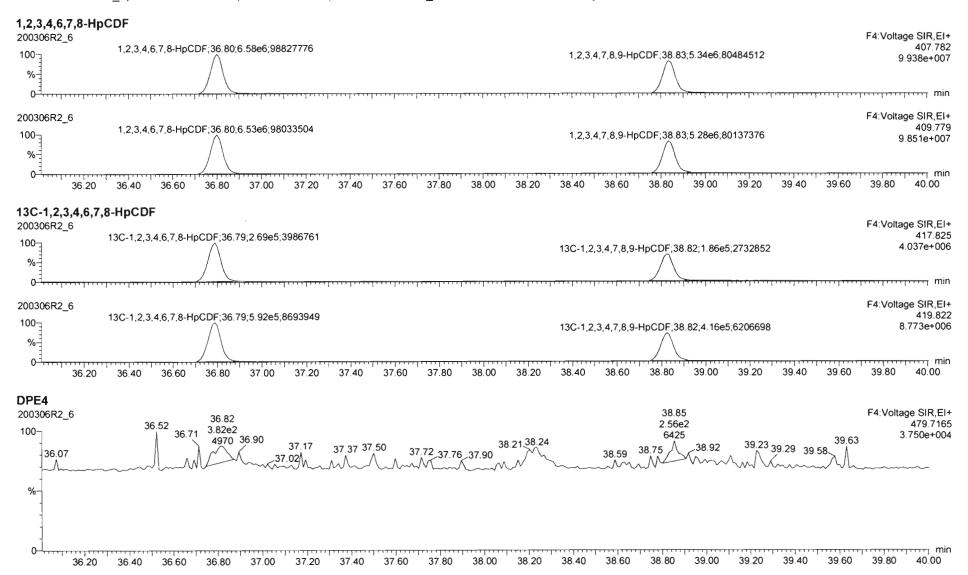
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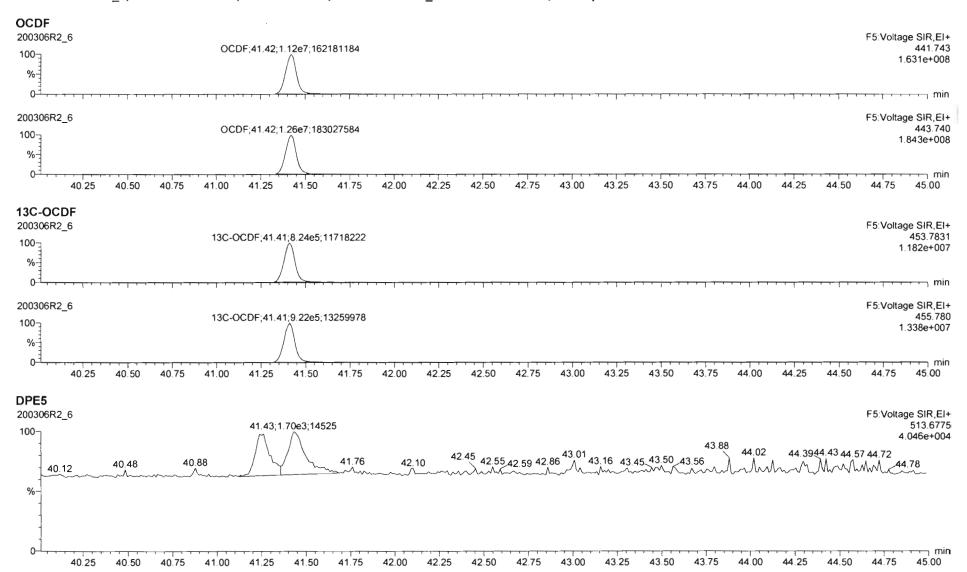
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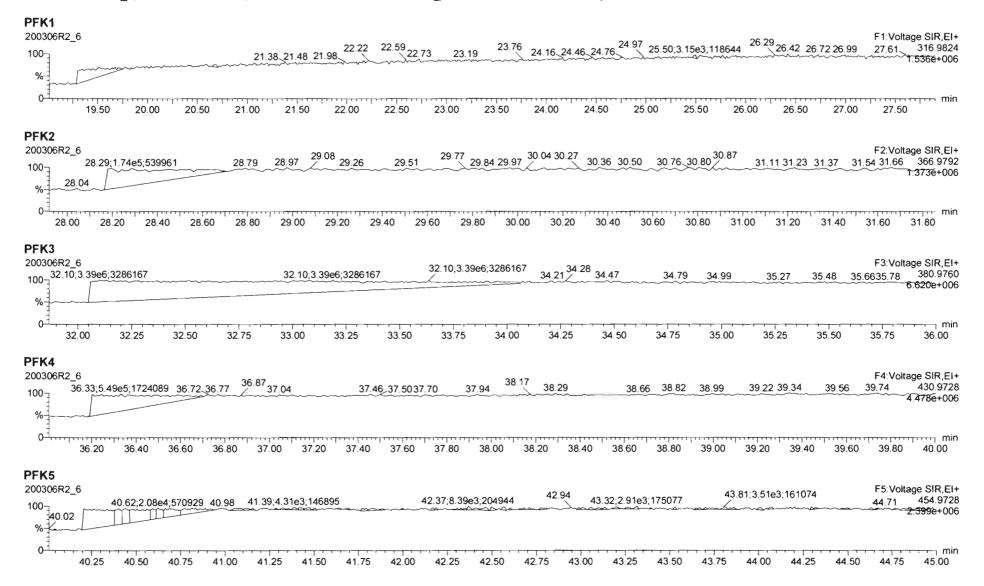
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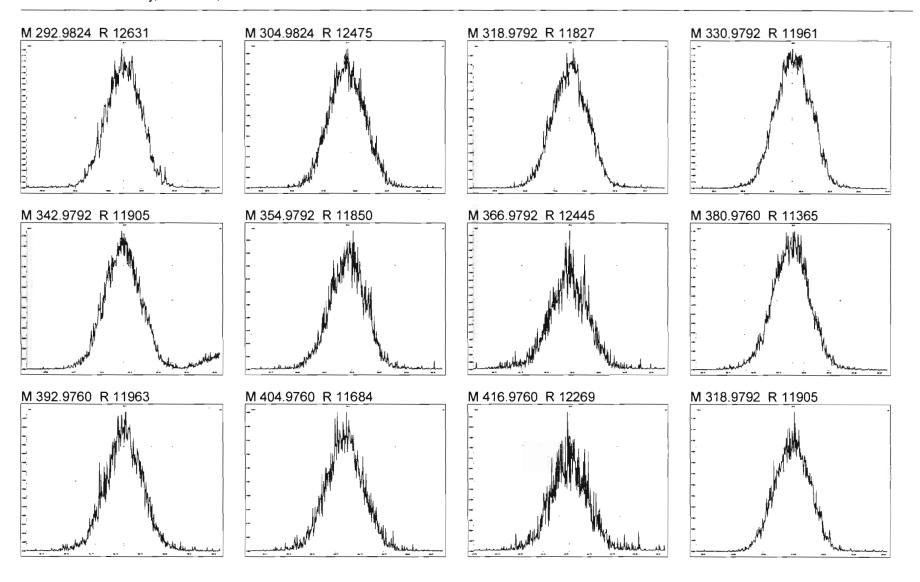
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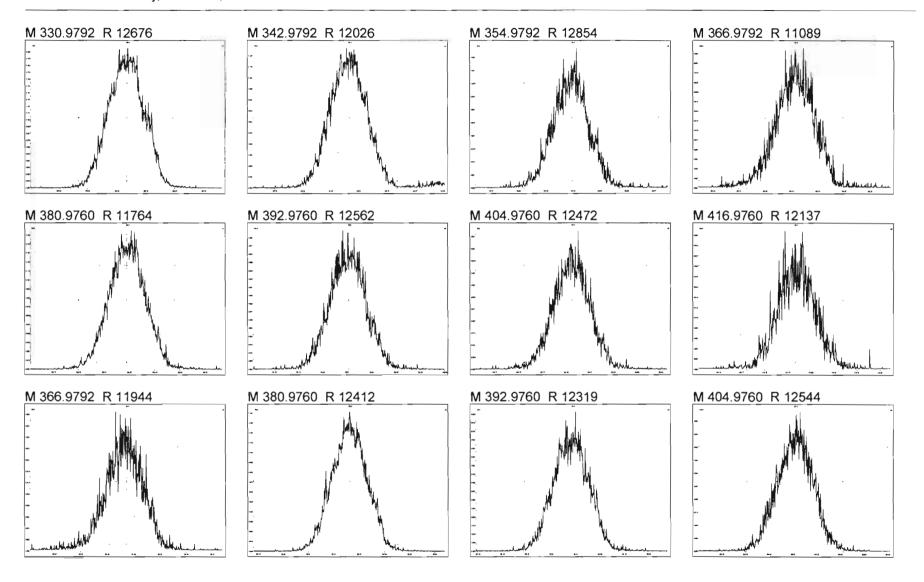


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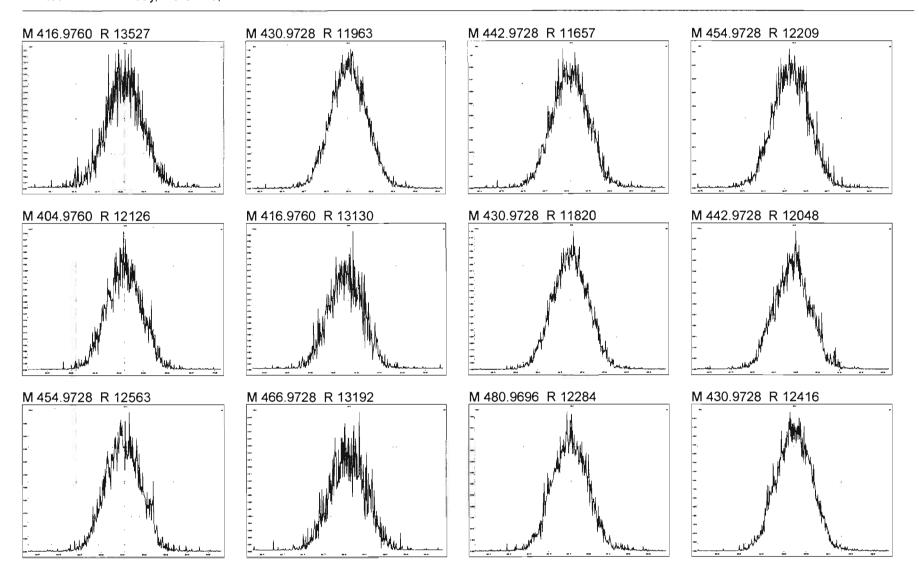
Work Order 1903654 Page 1105 of 1184

Friday, March 06, 2020 19:38:46 Pacific Standard Time



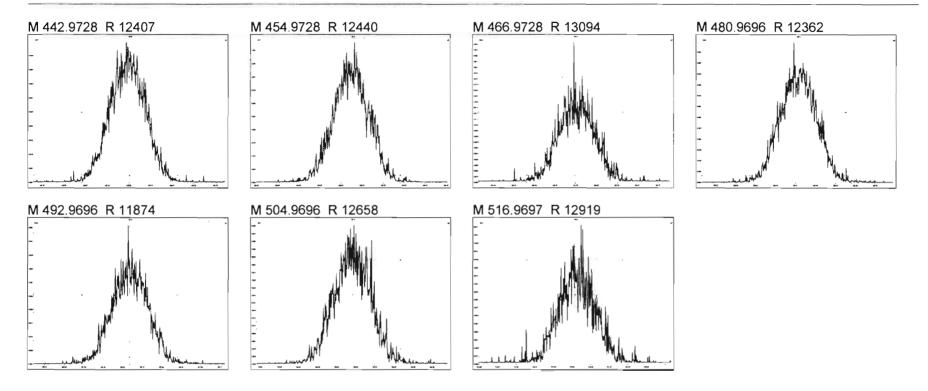
Work Order 1903654 Page 1106 of 1184

Friday, March 06, 2020 19:38:46 Pacific Standard Time



Work Order 1903654 Page 1107 of 1184

Friday, March 06, 2020 19:38:46 Pacific Standard Time



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Dataset:

U:\VG12.PRO\Results\200306R2\200306R2-8.qld

Last Altered: Printed:

Monday, March 09, 2020 09:14:18 Pacific Daylight Time Monday, March 09, 2020 09:15:42 Pacific Daylight Time

GRB 03/09/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

-500	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	9.28e4	0.77	NO	0.983	1.000	25.781	25.78	1.001	1.001	10.508	105	0.0462	10.5
2	2 1,2,3,7,8-PeCDD	3.71e5	0.63	NO	0.921	1.000	30.979	30.97	1.001	1.000	54.038	108	0.0655	54.0
3	3 1,2,3,4,7,8-HxCDD	3.32e5	1.24	NO	1.13	1.000	34.349	34.36	1.000	1.001	53.824	108	0.101	53.8
4	4 1,2,3,6,7,8-HxCDD	3.81e5	1.27	NO	0.984	1.000	34.445	34.46	1.000	1.000	57.230	114	0.0994	57.2
5	5 1,2,3,7,8,9-HxCDD	3.33e5	1.22	NO	0.967	1.000	34.722	34.72	1.000	1.000	56.617	113	0.117	56.6
6	6 1,2,3,4,6,7,8-HpCDD	2.52e5	1.04	NO	1.01	1.000	38.184	38.19	1.000	1.001	55.470	111	0.201	55.5
7	7 OCDD	4.61e5	0.91	NO	1.05	1.000	41.208	41.22	1.000	1.000	104.33	104	0.212	104
8	8 2,3,7,8-TCDF	1.19e5	0.80	NO	0.915	1.000	24.817	24.81	1.001	1.001	10.876	109	0.0390	10.9
9	9 1,2,3,7,8-PeCDF	5.58e5	1.55	NO	0.959	1.000	29.635	29.63	1.001	1.001	53.583	107	0.0901	53.6
10	10 2,3,4,7,8-PeCDF	6.50e5	1.53	NO	1.00	1.000	30.667	30.65	1.001	1.000	60.478	121	0.0822	60.5
11	11 1,2,3,4,7,8-HxCDF	4.39e5	1.22	NO	1.04	1.000	33.486	33.50	1.000	1.000	56.277	113	0.116	56.3
12	12 1,2,3,6,7,8-HxCDF	4.83e5	1.22	NO	1.01	1.000	33.614	33.63	1.000	1.001	58.225	116	0.120	58.2
13	13 2,3,4,6,7,8-HxCDF	4.58e5	1.23	NO	1.09	1.000	34.213	34.19	1.001	1.000	53.808	108	0.121	53.8
14	14 1,2,3,7,8,9-HxCDF	3.65e5	1.23	NO	1.03	1.000	35.052	35.06	1.000	1.000	54.692	109	0.173	54.7
15	15 1,2,3,4,6,7,8-HpCDF	3.38e5	1.03	NO	1.05	1.000	36.793	36.78	1.001	1.001	55.962	112	0.171	56.0
16	16 1,2,3,4,7,8,9-HpCDF	2.60e5	1.01	NO	1.21	1.000	38.801	38.81	1.000	1.000	55.091	110	0.218	55.1
17	17 OCDF	5.30e5	88.0	NO	0.947	1.000	41.389	41.40	1.000	1.000	107.93	108	0.154	108
18	18 13C-2,3,7,8-TCDD	8.98e5	0.78	NO	1.18	1.000	25.781	25.75	1.029	1.027	94.504	94.5	0.106	
19	19 13C-1,2,3,7,8-PeCDD	7.45e5	0.64	NO	0.864	1.000	30.974	30.96	1.236	1.235	107.38	107	0.187	1
20	20 13C-1,2,3,4,7,8-HxCDD	5.45e5	1.26	NO	0.754	1.000	34.341	34.34	1.014	1.014	85.136	85.1	0.201	
21	21 13C-1,2,3,6,7,8-HxCDD	6.77e5	1.26	NO	0.925	1.000	34.449	34.45	1.017	1.017	86.121	86.1	0.164	
22	22 13C-1,2,3,7,8,9-HxCDD	6.09e5	1.27	NO	0.829	1.000	34.710	34.71	1.025	1.025	86.383	86.4	0.183	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.51e5	1.04	NO	0.598	1.000	38.158	38.17	1.127	1.127	88.689	88.7	0.205	
24	24 13C-OCDD	8.40e5	0.87	NO	0.571	1.000	41.298	41.21	1.219	1.217	173.12	86.6	0.205	
25	25 13C-2,3,7,8-TCDF	1.19e6	0.78	NO	1.09	1.000	24.801	24.79	0.990	0.989	86.829	86.8	0.143	İ
26	26 13C-1,2,3,7,8-PeCDF	1.09e6	1.58	NO	0.876	1.000	29.643	29.61	1.183	1.182	98.396	98.4	0.243	
27	27 13C-2,3,4,7,8-PeCDF	1.07e6	1.60	NO	0.844	1.000	30.655	30.64	1.223	1.222	100.81	101	0.253	
28	28 13C-1,2,3,4,7,8-HxCDF	7.52e5	0.52	NO	1.00	1.000	33.491	33.49	0.989	0.989	88.441	88.4	0.228	•
29	29 13C-1,2,3,6,7,8-HxCDF	8.18e5	0.53	NO	1.12	1.000	33.599	33.60	0.992	0.992	86.171	86.2	0.204	
30	30 13C-2,3,4,6,7,8-HxCDF	7.80e5	0.52	NO	1.04	1.000	34.178	34.18	1.009	1.009	88.698	88.7	0.220	
31	31 13C-1,2,3,7,8,9-HxCDF	6.50e5	0.50	NO	0.873	1.000	35.049	35.05	1.035	1.035	87.589	87.6	0.261	

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MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\200306R2\200306R2-8.qld

Last Altered: Printed:

Monday, March 09, 2020 09:14:18 Pacific Daylight Time Monday, March 09, 2020 09:15:42 Pacific Daylight Time

Name: 200306R2_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

P- 2	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.76e5	0.45	NO	0.771	1.000	36.759	36.76	1.085	1.085	87.916	87.9	0.211	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.91e5	0.44	NO	0.519	1.000	38.839	38.80	1.147	1.146	88.538	88.5	0.314	
34	34 13C-OCDF	1.04e6	0.90	NO	0.696	1.000	41.477	41.39	1.225	1.222	175.32	87.7	0.183	I
35	35 37CI-2,3,7,8-TCDD	9.59e4			1.17	1.000	25.791	25.78	1.029	1.029	10.173	102	0.0234	
36	36 13C-1,2,3,4-TCDD	8.02e5	0.79	NO	1.00	1.000	25.050	25.06	1.000	1.000	100.00	100	0.126	
37	37 13C-1,2,3,4-TCDF	1.26e6	0.80	NO	1.00	1.000	23.190	23.19	1.000	1.000	100.00	100	0.156	
38	38 13C-1,2,3,4,6,9-HxCDF	8.50e5	0.51	NO	1.00	1.000	33.880	33.87	1.000	1.000	100.00	100	0.228	

Work Order 1903654 Page 1110 of 1184

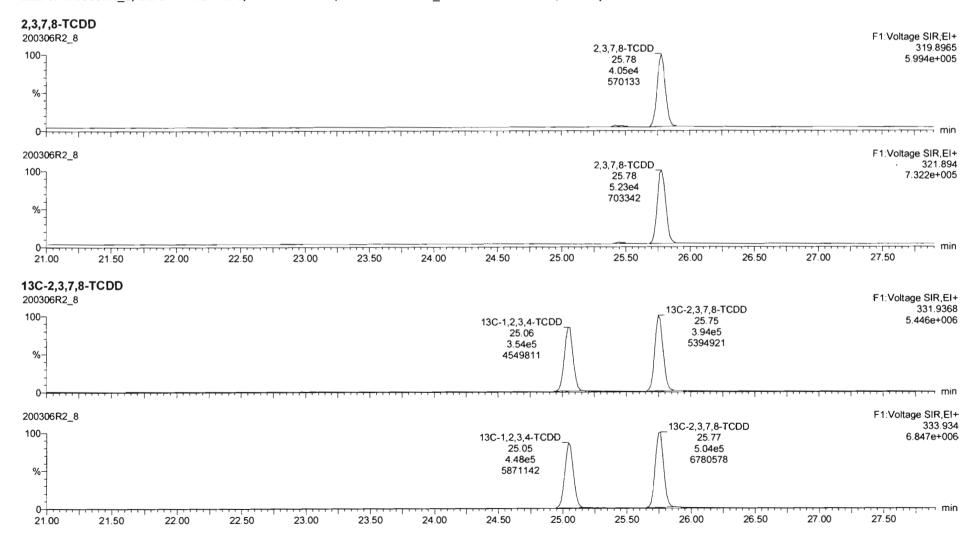
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Calibration: U:\VG12.PRO\CurveDB\db5 1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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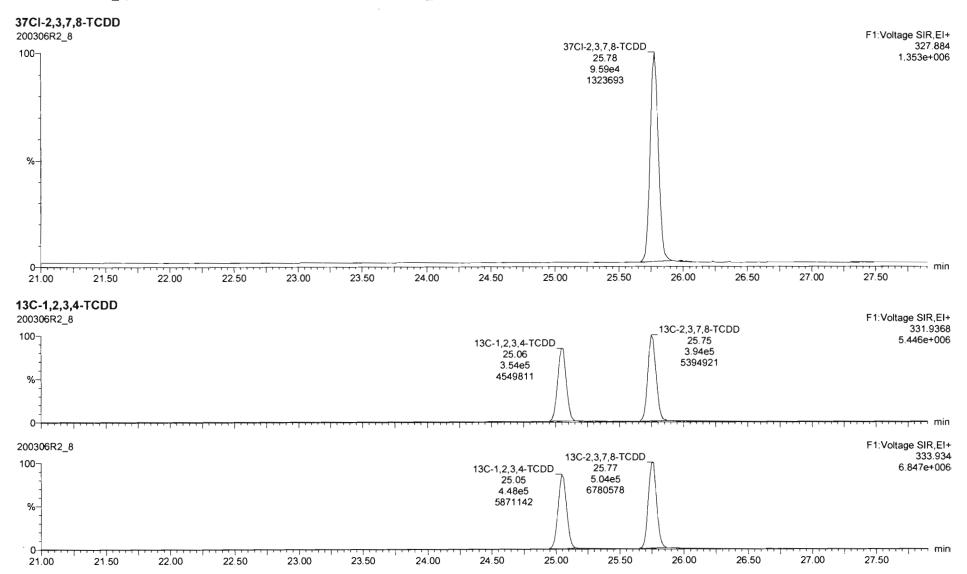


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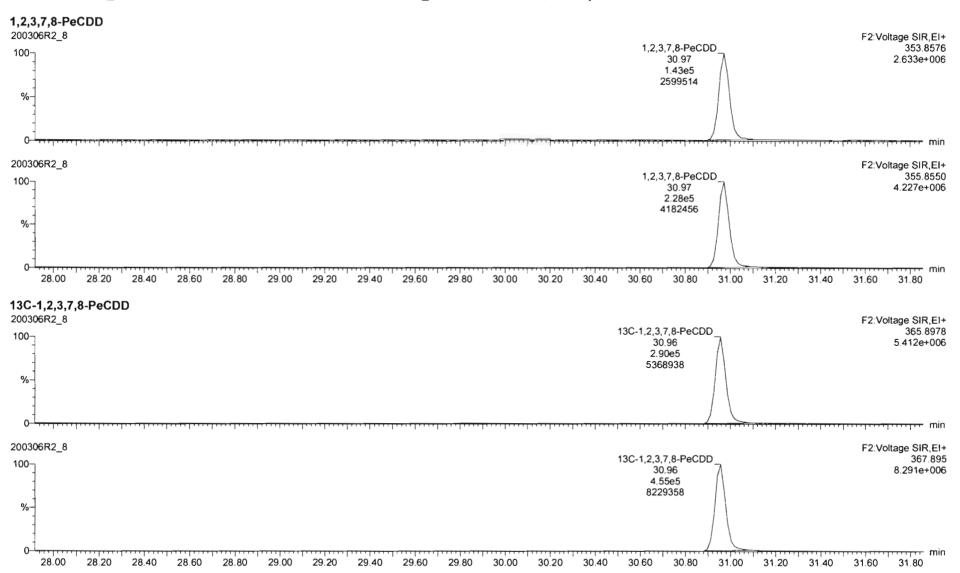
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Last Altered: Printed: Monday, March 09, 2020 09:01:52 Pacific Daylight Time Monday, March 09, 2020 09:03:37 Pacific Daylight Time

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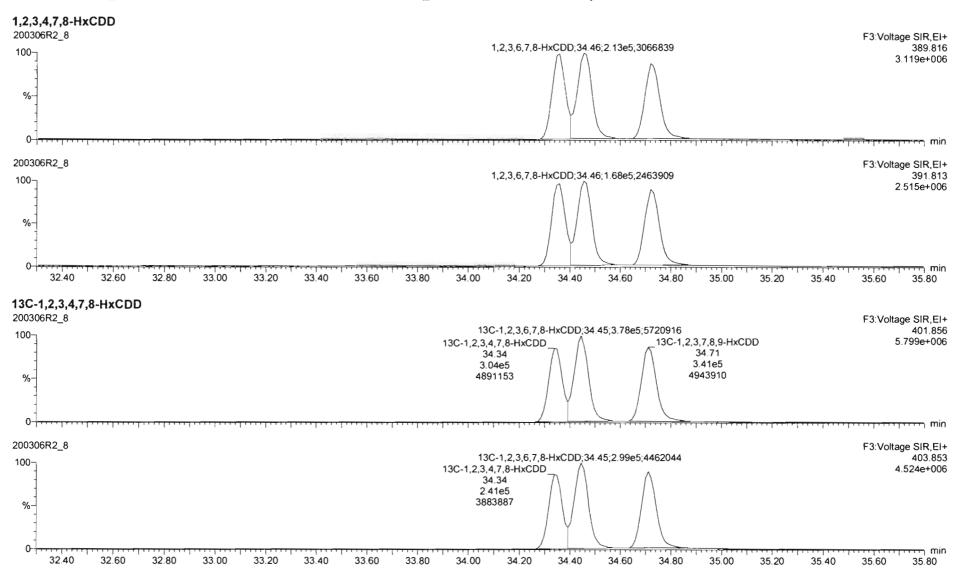
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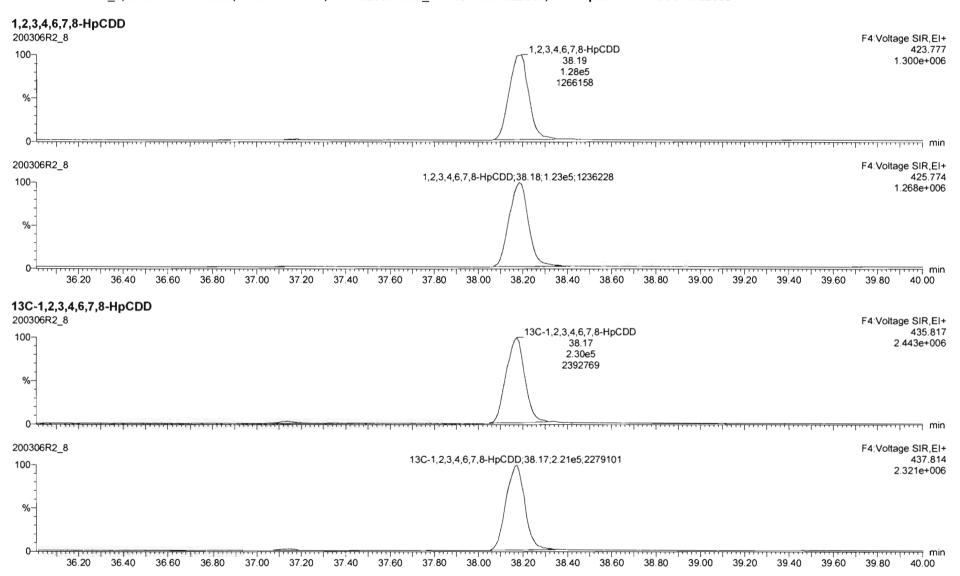
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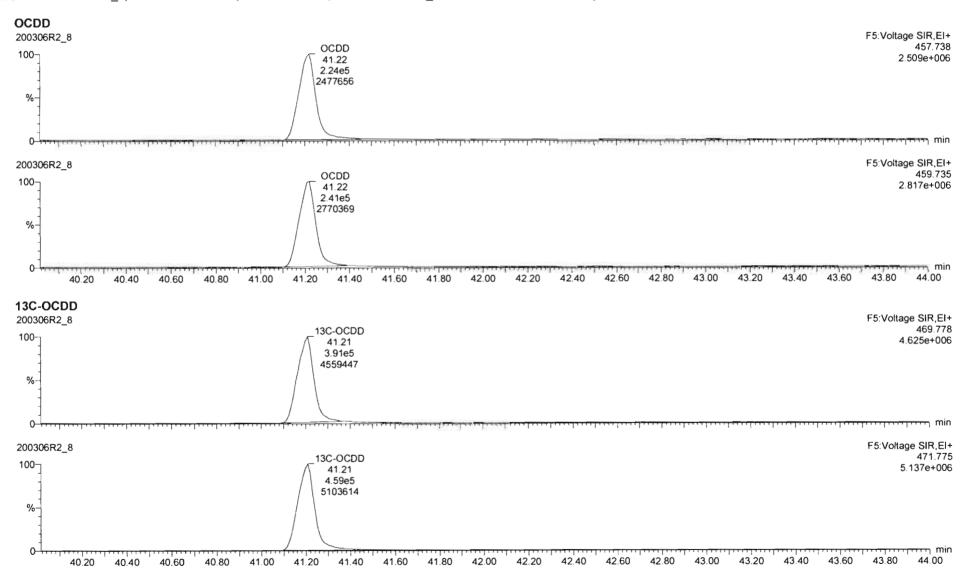
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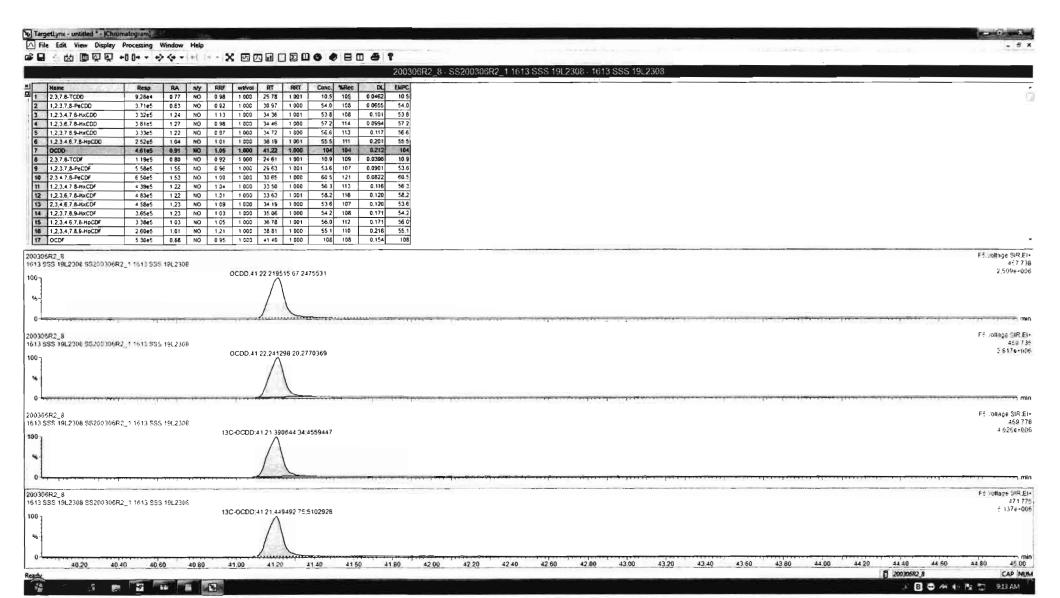
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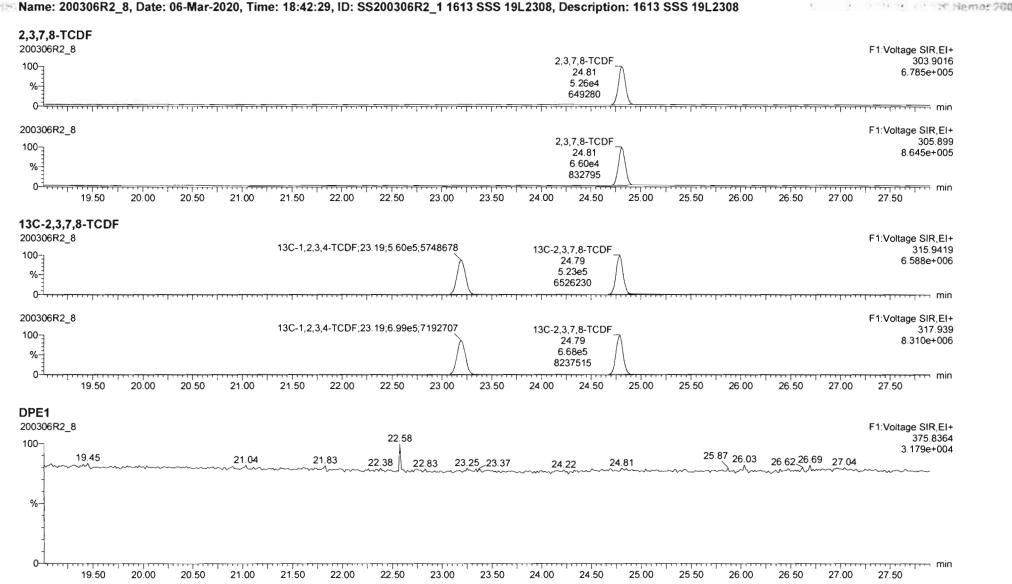
Work Order 1903654 Page 1117 of 1184

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Last Altered: Printed:

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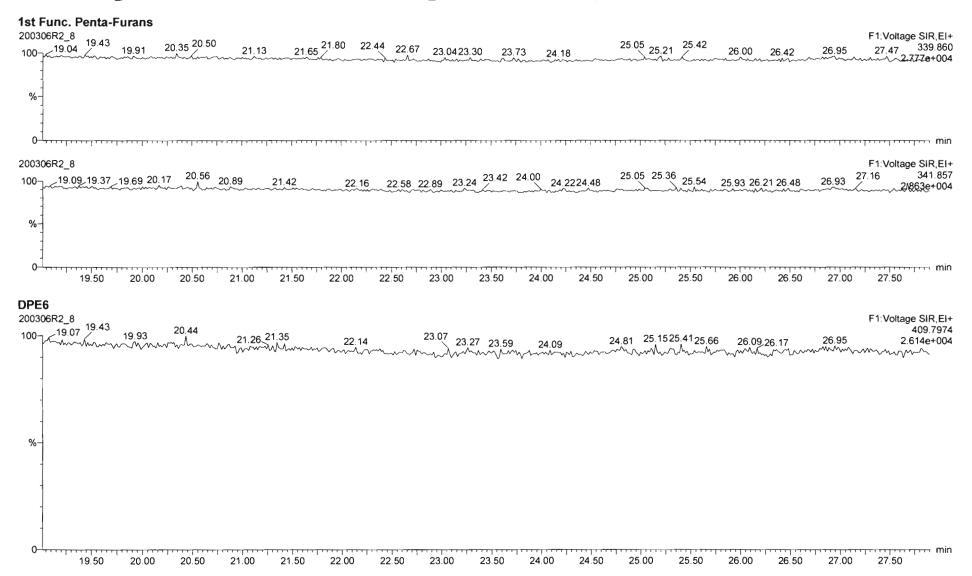
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Dataset:

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Last Altered: Printed: Monday, March 09, 2020 09:01:52 Pacific Daylight Time Monday, March 09, 2020 09:03:37 Pacific Daylight Time

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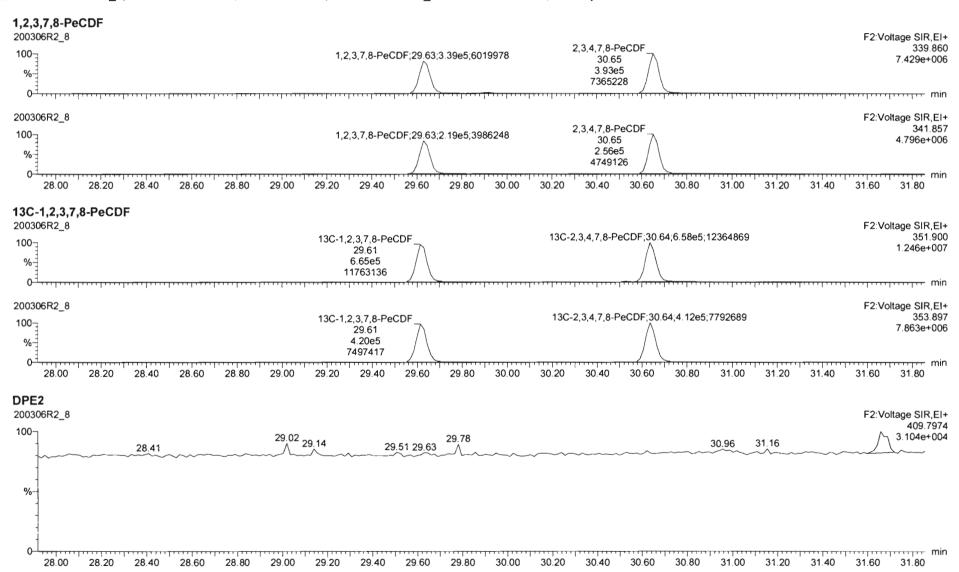


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Monday, March 09, 2020 09:01:52 Pacific Daylight Time Monday, March 09, 2020 09:03:37 Pacific Daylight Time

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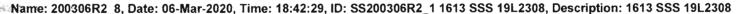
remonal Pinters (KE di Kom

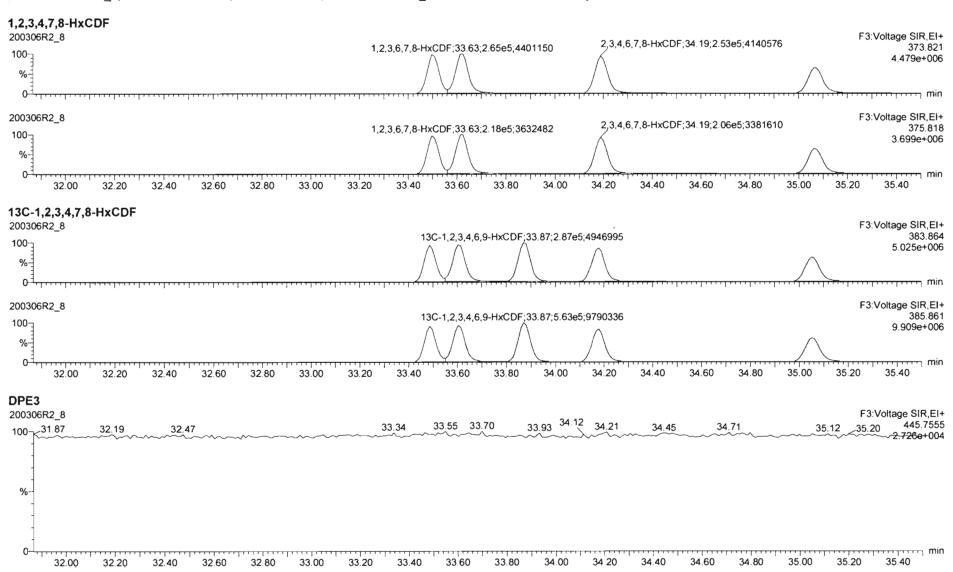
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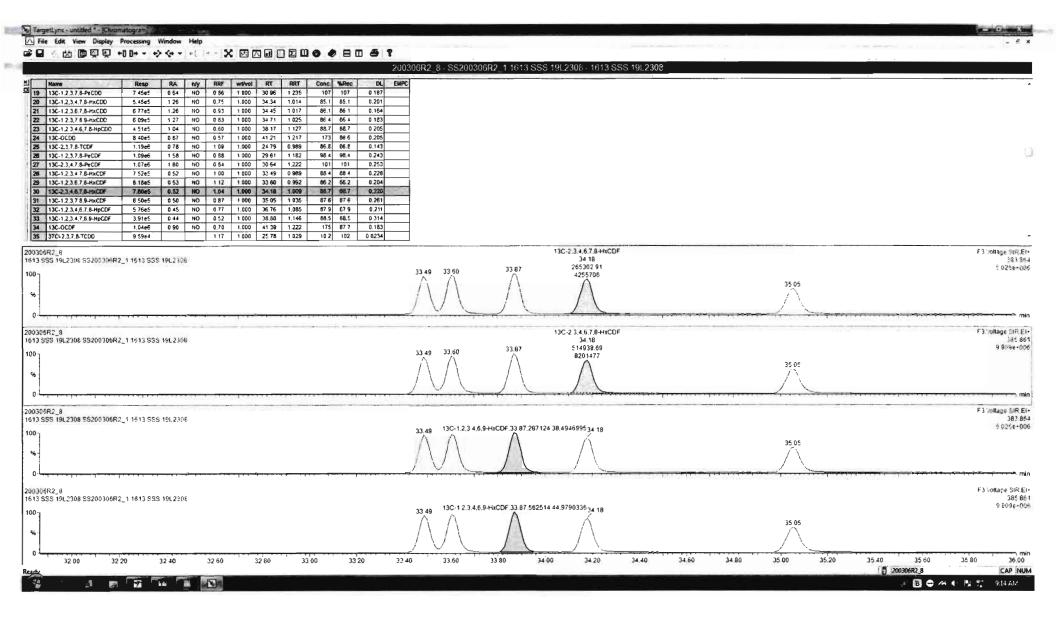
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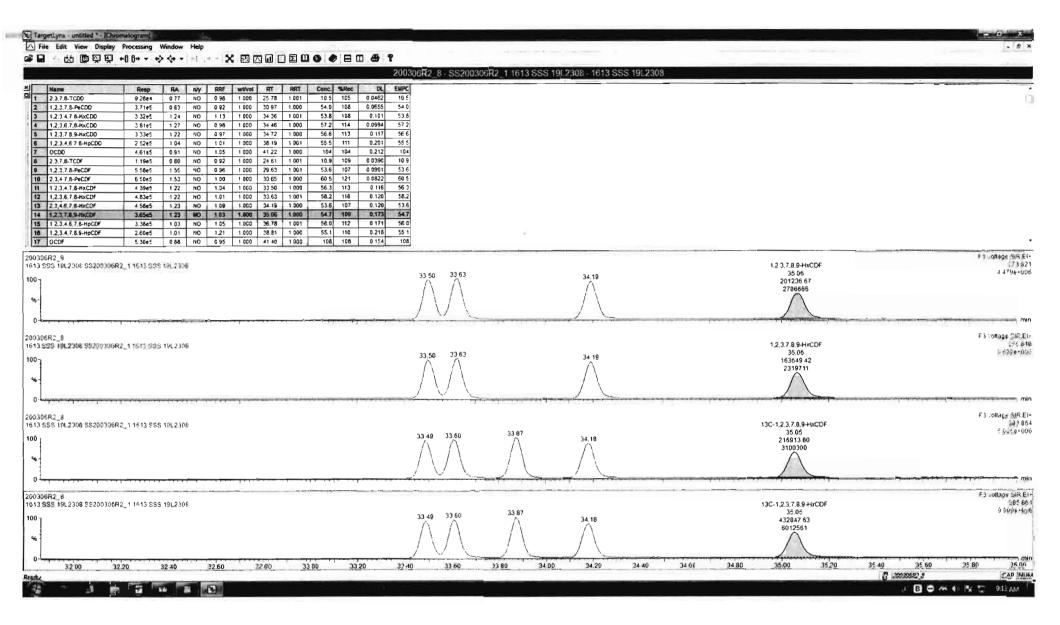
Monday, March 09, 2020 09:01:52 Pacific Daylight Time Monday, March 09, 2020 09:03:37 Pacific Daylight Time







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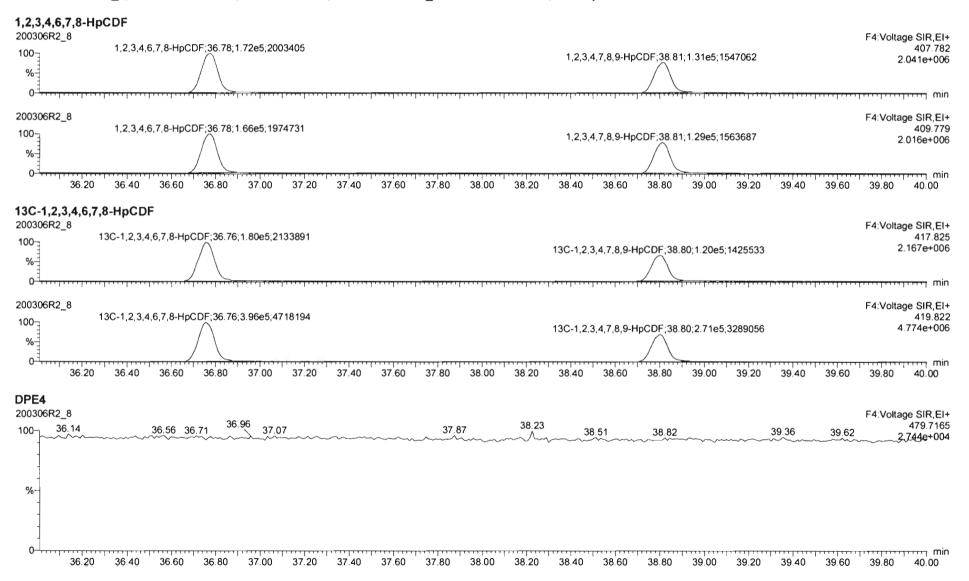
Work Order 1903654 Page 1123 of 1184

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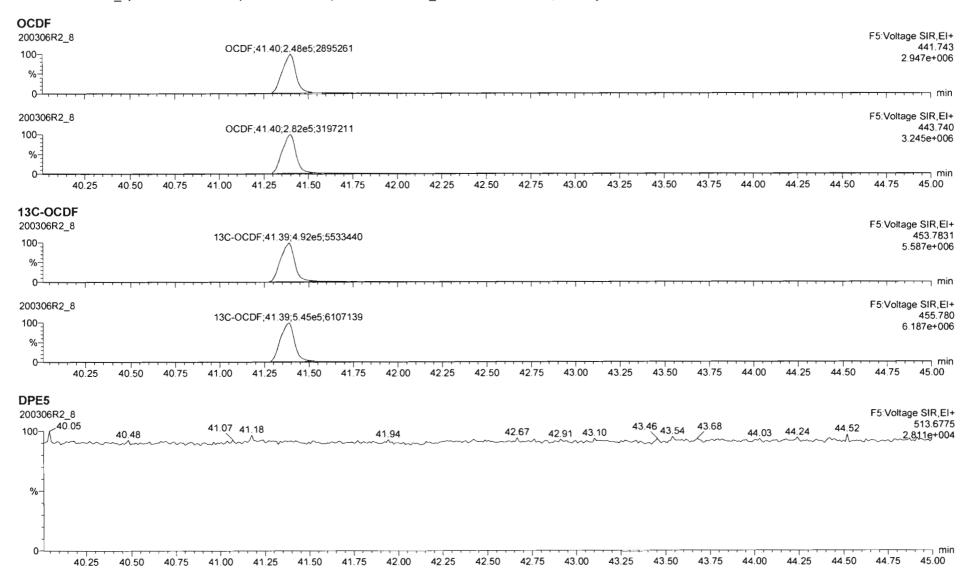


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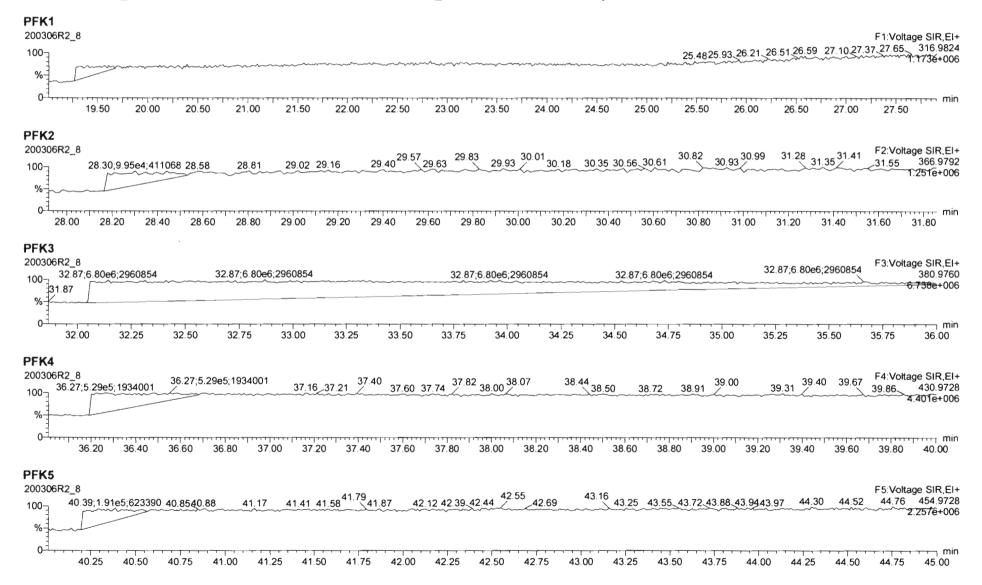
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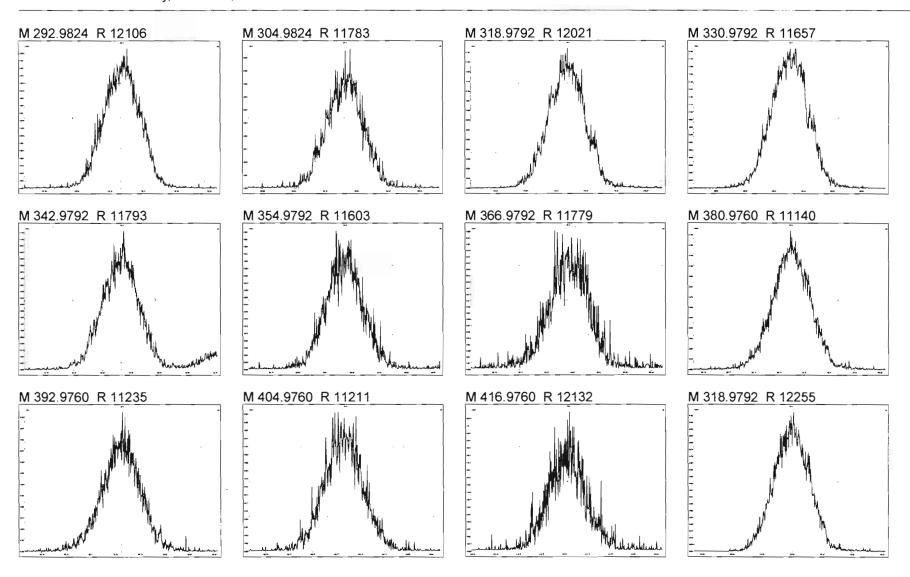
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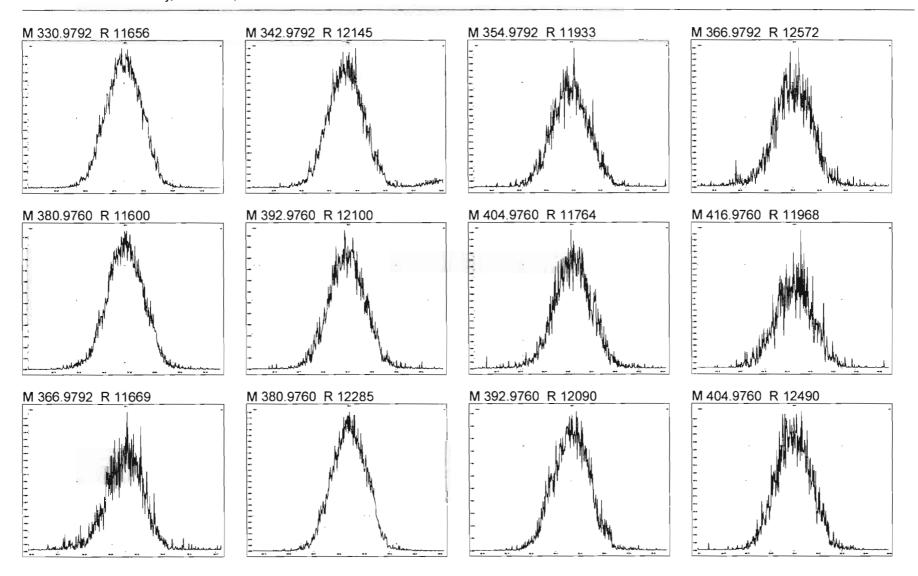


Saturday, March 07, 2020 02:06:12 Pacific Standard Time



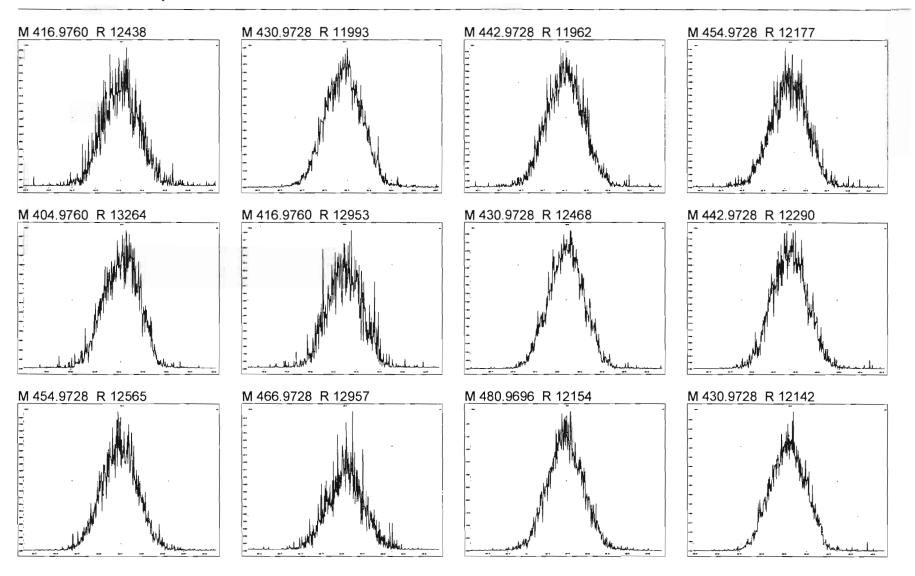
Work Order 1903654 Page 1127 of 1184

Saturday, March 07, 2020 02:06:12 Pacific Standard Time



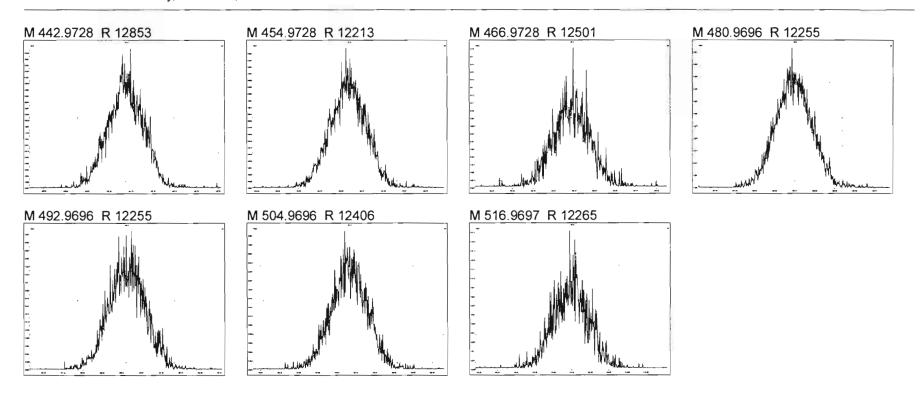
Work Order 1903654 Page 1128 of 1184

Saturday, March 07, 2020 02:06:12 Pacific Standard Time



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Saturday, March 07, 2020 02:06:12 Pacific Standard Time



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Quantify Compound Summary Report Vista Analytical Laboratory VG-9

MassLynx 4.1

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Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Printed: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:35:39 Pacific Standard Time

DB 2/12/20 Croz/12/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24

Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Compound name: 2,3,7,8-TCDF

Response Factor: 0.9819

RRF SD: 0.0791981, Relative SD: 8.06581

Response type: Internal Std (Ref 2), Area * (IS Conc. / IS Area)

Curve type: RF

1000-	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	0.250	0.86	NO	17.23	3.04e2	1.39e5	0.223	0.876
2	2 200211D2_4	0.500	0.66	NO	17.22	6.08e2	1.13e5	0.549	1.08
3	3 200211D2_5	2.00	0.73	NO	17.23	2.63e3	1.30e5	2.06	1.01
4	4 200211D2_6	10.0	0.75	NO	17.23	1.15e4	1.25e5	9.33	0.916
5	5 200211D2_7	40.0	0.74	NO	17.23	5.76e4	1.51e5	39.0	0.957
6	6 200211D2_8	300	0.73	NO	17.23	4.81e5	1.52e5	321	1.05

Compound name: 13C-2,3,7,8-TCDF

Response Factor: 1.08271

RRF SD: 0.0939058, Relative SD: 8.67318

Response type: Internal Std (Ref 3), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	100	0.72	NO	17.20	1.39e5	1.13e5	113	1.23
2	2 200211D2_4	100	0.71	NO	17.20	1.13e5	1.14e5	91.7	0.993
3	3 200211D2_5	100	0.71	NO	17.20	1.30e5	1.34e5	89.3	0.967
4	4 200211D2_6	100	0.75	NO	17.20	1.25e5	1.15e5	101	1.09
5	5 200211D2_7	100	0.71	NO	17.20	1.51e5	1.35e5	103	1.11
0	6 200211D2_8	100	0.72	NO	17.20	1.52e5	1.38e5	102	1.11

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Quantify Compound Summary Report Vista Analytical Laboratory VG-9

MassLynx 4.1

Page 2 of 2

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Printed:

Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:35:39 Pacific Standard Time

Compound name: 13C-1,2,3,4-TCDF

Response Factor: 1

RRF SD: 7.02167e-017, Relative SD: 7.02167e-015

Response type: Internal Std (Ref 3), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	100	0.70	NO	15.17	1.13e5	1.13e5	100	1.00
2	2 200211D2_4	100	0.71	NO	15.18	1.14e5	1.14e5	100	1.00
3	3 200211D2_5	100	0.74	NO	15.17	1.34e5	1.34e5	100	1.00
4	4 200211D2_6	100	0.72	NO	15.17	1.15e5	1.15e5	100	1.00
5	5 200211D2_7	100	0.73	NO	15.17	1.35e5	1.35e5	100	1.00
6	6 200211D2_8	100	0.73	NO	15.17	1.38e5	1.38e5	100	1.00

Compound name: 13C-1,2,3,4-TCDD

Response Factor: 1026.38

RRF SD: 123.841, Relative SD: 12.0658 Response type: External Std, Area

Curve type: RF

700	# Name	Std. Conc	RA	n/y	RT	Resp	IS Resp	Conc.	RRF
1	1 200211D2_3	100	0.79	NO	15.78	1.04e5		102	1040
2	2 200211D2_4	100	0.77	NO	15.78	8.57e4		83.5	857
3	3 200211D2_5	100	0.79	NO	15.78	9.44e4		92.0	944
4	4 200211D2_6	100	0.79	NO	15.78	9.87e4		96.1	987
5	5 200211D2_7	100	0.78	NO	15.78	1.13e5		110	1130
6	6 200211D2_8	100	0.78	NO	15.78	1.20e5		116	1200

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Quantify Sample Summary Report MassLynx 4.1 Page 1 of 6

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24 Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Name: 200211D2_3, Date: 11-Feb-2020, Time: 21:00:36, ID: ST200211D2-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	3.04e2	0.86	NO	0.982	1.000	17.23	0.22305	89.2	0.0931
2	2 13C-2,3,7,8-TCDF	1.39e5	0.72	NO	1.08	1.000	17.20	113.42	113	0.342
3	3 13C-1,2,3,4-TCDF	1.13e5	0.70	NO	1.00	1.000	15.17	100.00	100	0.371
4	4 13C-1,2,3,4-TCDD	1.04e5	0.79	NO	1030	1.000	15.78	101.65	102	0.291

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Quantify Sample Summary Report MassLynx 4.1 Page 2 of 6

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2_4, Date: 11-Feb-2020, Time: 21:32:19, ID: ST200211D2-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

THE REAL PROPERTY.	# Name	Resp	RA	n/y	RRF M	wt/voi	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	6.08e2	0.66	NO	0.982	1.000	17.22	0.54947	110	0.147
2	2 13C-2,3,7,8-TCDF	1.13e5	0.71	NO	1.08	1.000	17.20	91.711	91.7	0.381
3	3 13C-1,2,3,4-TCDF	1.14e5	0.71	NO	1.00	1.000	15.18	100.00	100	0.412
4	4 13C-1,2,3,4-TCDD	8.57e4	0.77	NO	1030	1.000	15.78	83.528	83.5	0.324

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Quantify Sample Summary Report MassLynx 4.1 Page 3 of 6

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2_5, Date: 11-Feb-2020, Time: 22:04:03, ID: ST200211D2-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

1911	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	2.63e3	0.73	NO	0.982	1.000	17.23	2.0631	103	0.121
2	2 13C-2,3,7,8-TCDF	1.30e5	0.71	NO	1.08	1.000	17.20	89.279	89.3	0.292
3	3 13C-1,2,3,4-TCDF	1.34e5	0.74	NO	1.00	1.000	15.17	100.00	100	0.316
4	4 13C-1,2,3,4-TCDD	9.44e4	0.79	NO	1030	1.000	15.78	92.007	92.0	0.336

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Quantify Sample Summary Report MassLynx 4.1 Page 4 of 6

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2_6, Date: 11-Feb-2020, Time: 22:35:45, ID: ST200211D2-4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

The Real Property lies	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	1.15e4	0.75	NO	0.982	1.000	17.23	9.3257	93.3	0.185
2	2 13C-2,3,7,8-TCDF	1.25e5	0.75	NO	1.08	1.000	17.20	100.76	101	0.364
3	3 13C-1,2,3,4-TCDF	1.15e5	0.72	NO	1.00	1.000	15.17	100.00	100	0.394
4	4 13C-1,2,3,4-TCDD	9.87e4	0.79	NO	1030	1.000	15.78	96.149	96.1	0.331

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Quantify Sample Summary Report MassLynx 4.1 Page 5 of 6

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2_7, Date: 11-Feb-2020, Time: 23:07:28, ID: ST200211D2-5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

3000	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	5.76e4	0.74	NO	0.982	1.000	17.23	38.981	97.5	0.158
2	2 13C-2,3,7,8-TCDF	1.51 e 5	0.71	NO	1.08	1.000	17.20	102.61	103	0.300
3	3 13C-1,2,3,4-TCDF	1.35e5	0.73	NO	1.00	1.000	15.17	100.00	100	0.325
4	4 13C-1,2,3,4-TCDD	1.13e5	0.78	NO	1030	1.000	15.78	110.19	110	0.311

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Quantify Sample Summary Report MassLynx 4.1 Page 6 of 6

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2_8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

P. Carlo	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	4.81e5	0.73	NO	0.982	1.000	17.23	321.06	107	0.243
2	2 13C-2,3,7,8-TCDF	1.52e5	0.72	NO	1.08	1.000	17.20	102.22	102	0.295
3	3 13C-1,2,3,4-TCDF	1.38e5	0.73	NO	1.00	1.000	15.17	100.00	100	0.319
4	4 13C-1,2,3,4-TCDD	1.20e5	0.78	NO	1030	1.000	15.78	116.47	116	0.322

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Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Wednesday, February 12, 2020 10:45:15 Pacific Standard Time Printed: Wednesday, February 12, 2020 10:45:35 Pacific Standard Time

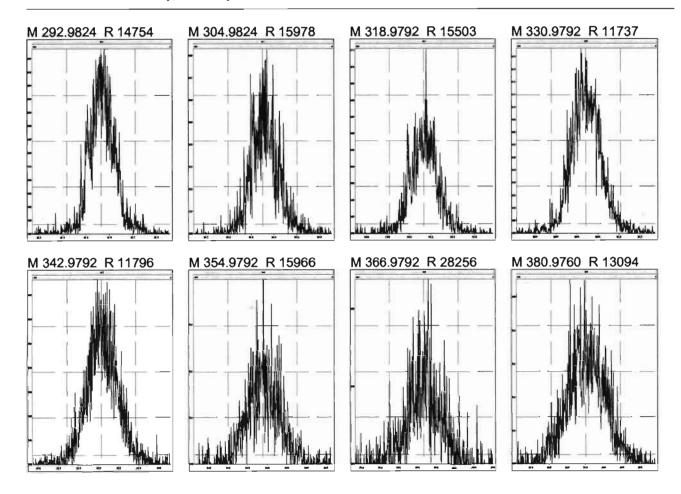
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Calibration: C:\MassLynx\Default.PRO\CurveDB\db-225_m23tcdfvg7-2-11-20.cdb 11 Feb 2020 14:52:18

Compound name: 2,3,7,8-TCDF

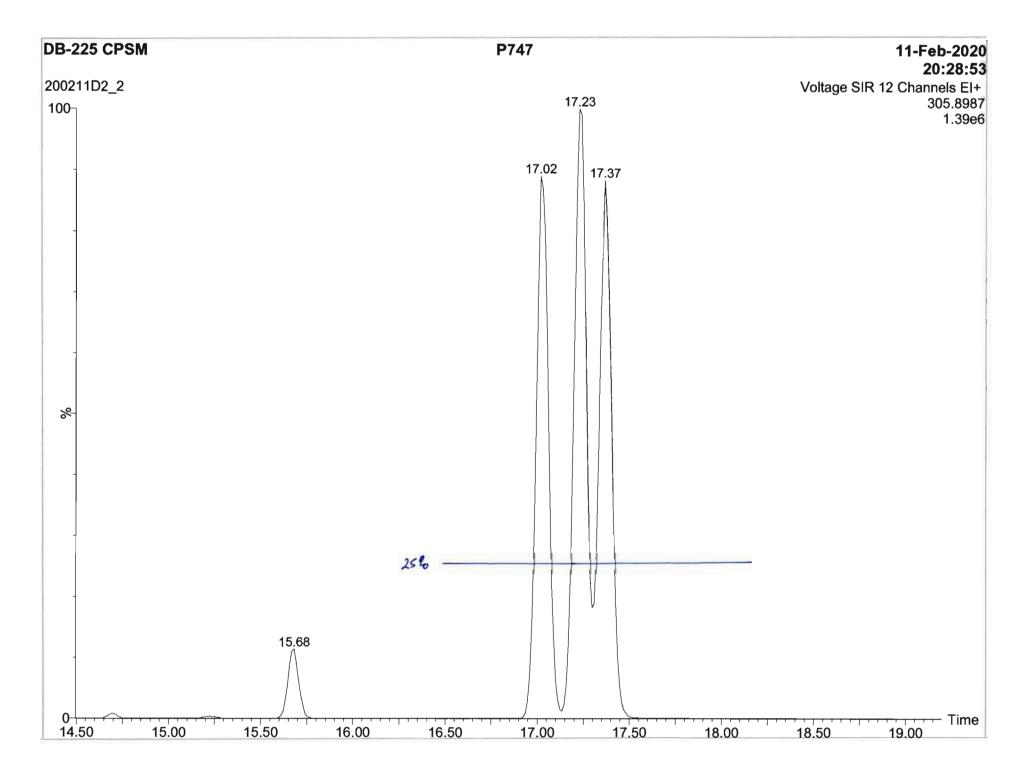
- A 19 19 - 10	Name	ID	Acq.Date	Acq.Time
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2	200211D2_2	CP200211D2-1 DB-225 CPSM	11-Feb-20	20:28:53
3	200211D2_3	ST200211D2-1 1613 CS0 19L2302	11-Feb-20	21:00:36
4	200211D2_4	ST200211D2-2 1613 CS1 19L2303	11-Feb-20	21:32:19
5	200211D2_5	ST200211D2-3 1613 CS2 19L2304	11-Feb-20	22:04:03
6	200211D2_6	ST200211D2-4 1613 CS3 19L2305	11-Feb-20	22:35:45
7	200211D2_7	ST200211D2-5 1613 CS4 19L2306	11-Feb-20	23:07:28
8	200211D2_8	ST200211D2-6 1613 CS5 19L2307	11-Feb-20	23:39:11
9	200211D2_9	SOLVENT BLANK	12-Feb-20	00:10:54
10	200211D2_10	SS200211D2-1 1613 SSS 19L2308	12-Feb-20	00:42:33
11	200211D2_11	SOLVENT BLANK	12-Feb-20	01:14:15
12	200211D2_12	1903740-08RE1 PDI-097SC-B-06-08-191017	12-Feb-20	01:45:58
13	200211D2_13	1903740-07RE1 PDI-097SC-B-04-06-191017	12-Feb-20	02:17:39
14	200211D2_14	1903740-06RE1 PDI-097SC-B-02-04-191017	12-Feb-20	02:49:21
15	200211D2_15	1903740-01RE1 PDI-031SC-B-00-02-191017	12-Feb-20	03:21:03
16	200211D2_16	1903740-05RE1 PDI-097SC-B-00-02-191017	12-Feb-20	03:52:45

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Tuesday, February 11, 2020 19:58:33 Pacific Standard Time



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Vista Analytical Laboratory VG-11

Dataset:

U:\VG7.PRO\Results\200211D2\200111D2_2.qld

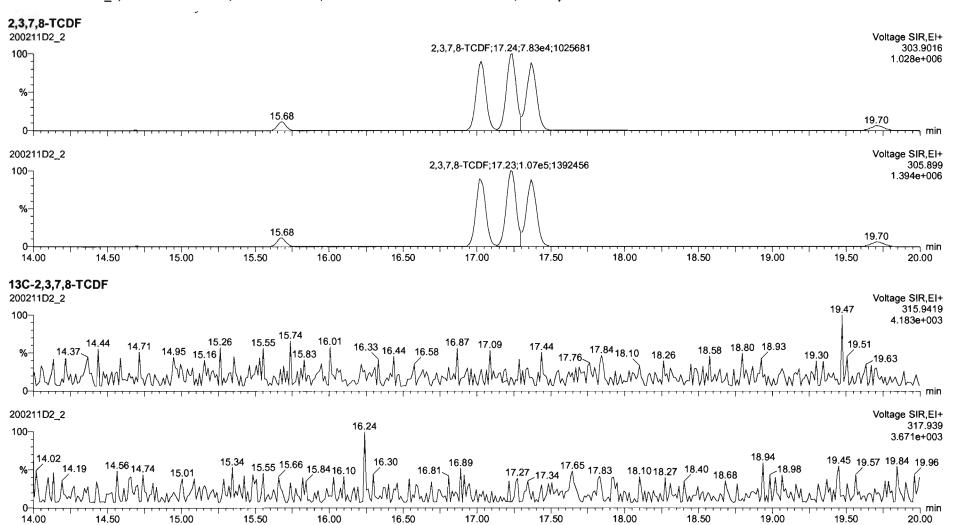
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Wednesday, February 12, 2020 10:13:49 Pacific Standard Time Wednesday, February 12, 2020 10:15:34 Pacific Standard Time

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Calibration: C:\MassLynx\Default.PRO\CurveDB\db-225_m23tcdfvg7-2-11-20.cdb 11 Feb 2020 14:52:18

Name: 200211D2 2, Date: 11-Feb-2020, Time: 20:28:53, ID: CP200211D2-1 DB-225 CPSM, Description: DB-225 CPSM



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Quantify Sample Report MassLynx 4.1

Vista Analytical Laboratory VG-11

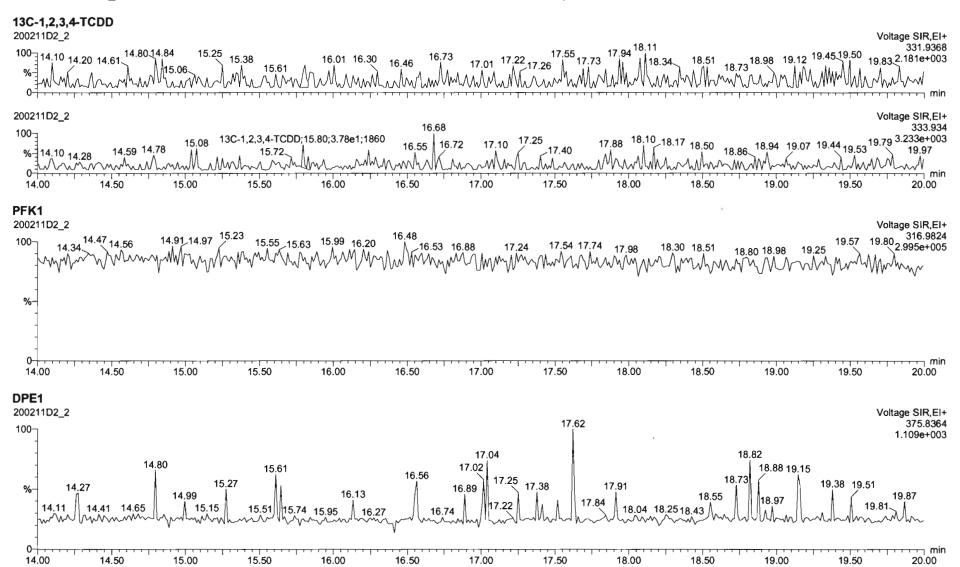
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Last Altered: Printed:

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Quantify Sample Report MassLynx 4.1
Vista Analytical Laboratory VG-11

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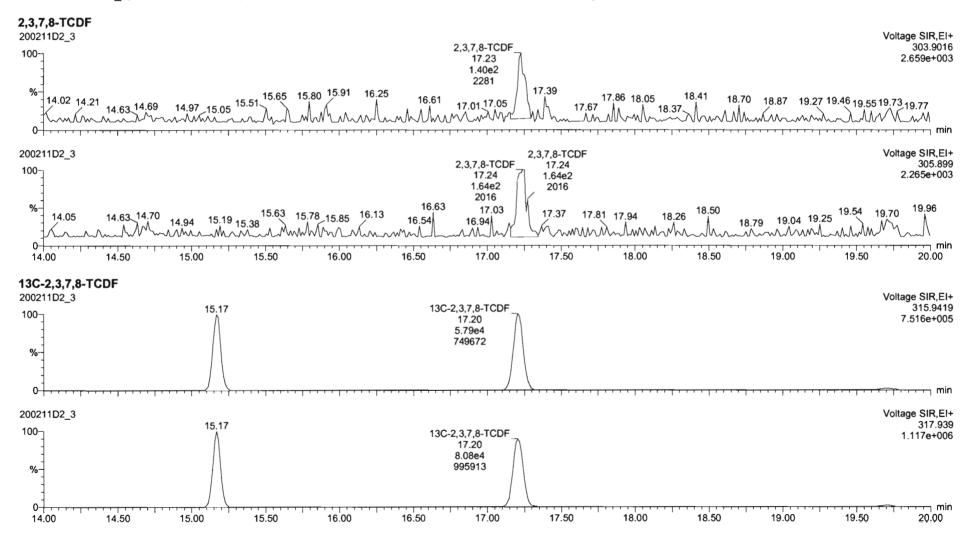
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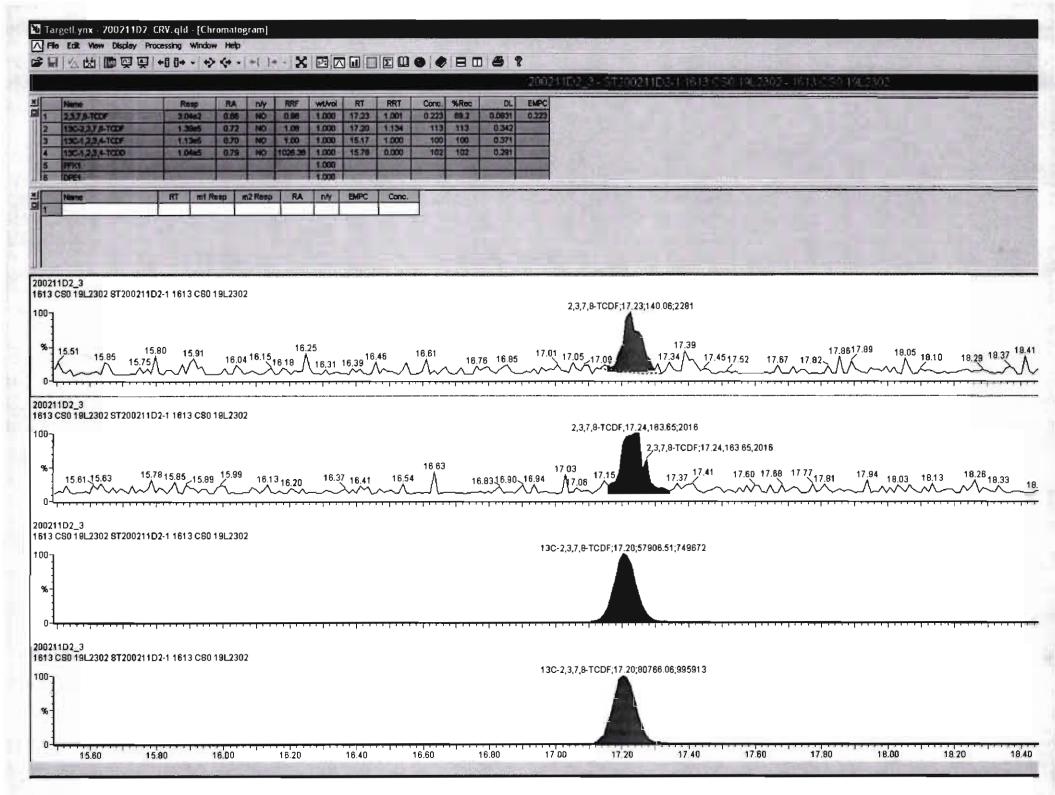
Last Altered: Printed:

Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

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Name: 200211D2 3, Date: 11-Feb-2020, Time: 21:00:36, ID: ST200211D2-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302





Quantify Sample Report MassLynx 4.1

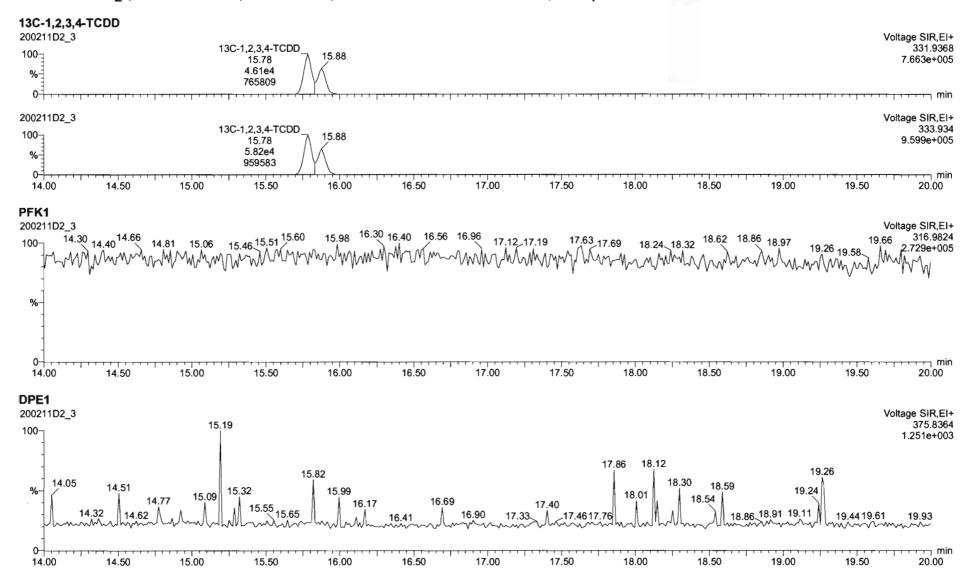
Vista Analytical Laboratory VG-11

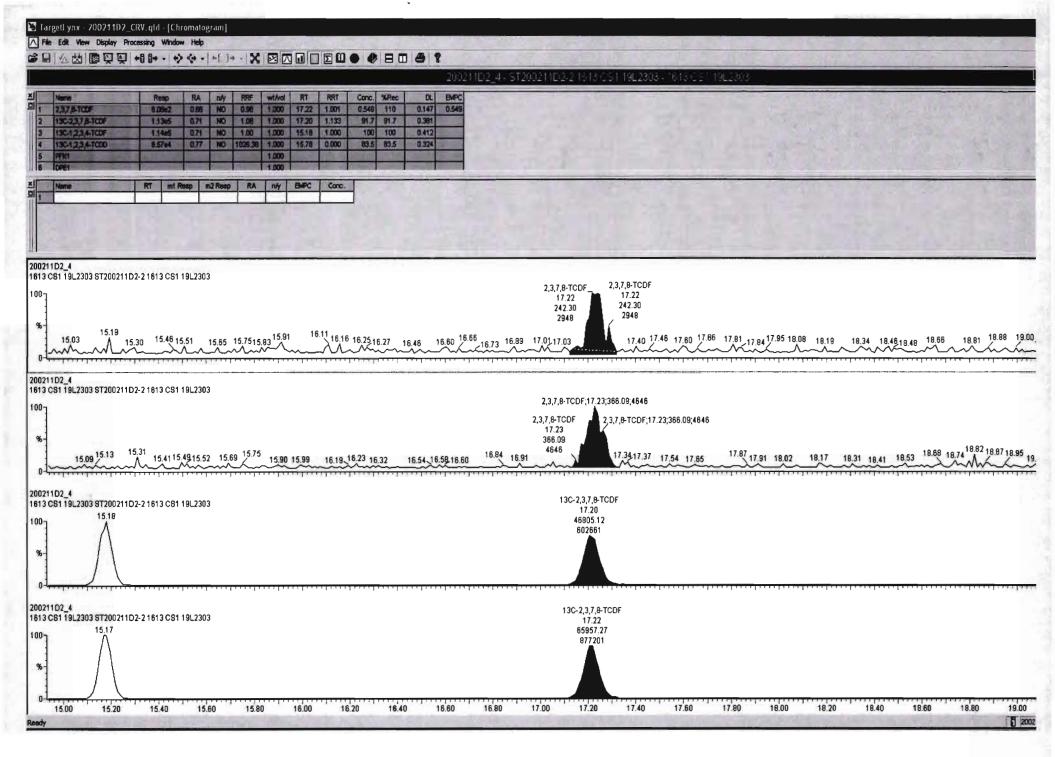
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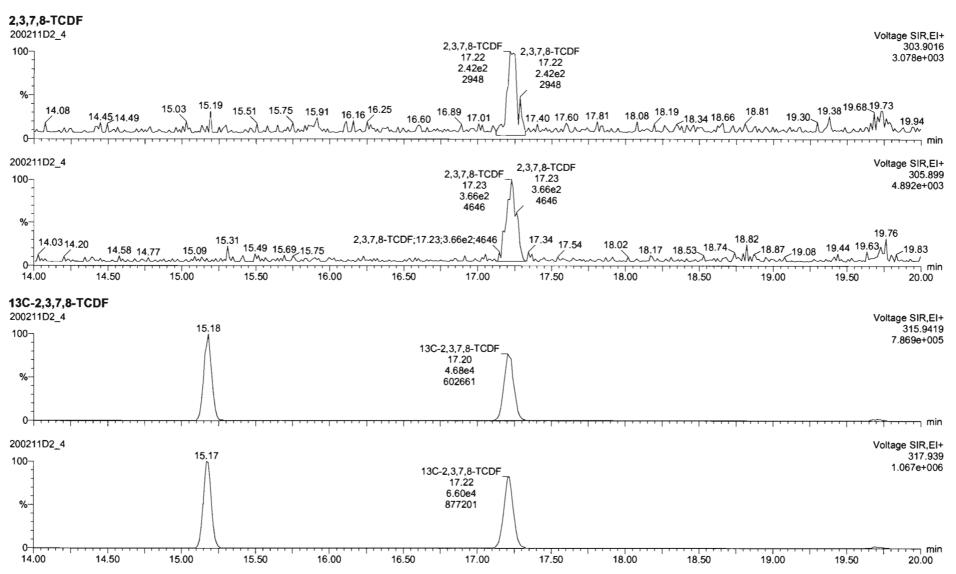
Vista Analytical Laboratory VG-11

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_4, Date: 11-Feb-2020, Time: 21:32:19, ID: ST200211D2-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303



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Quantify Sample Report MassLynx 4.1

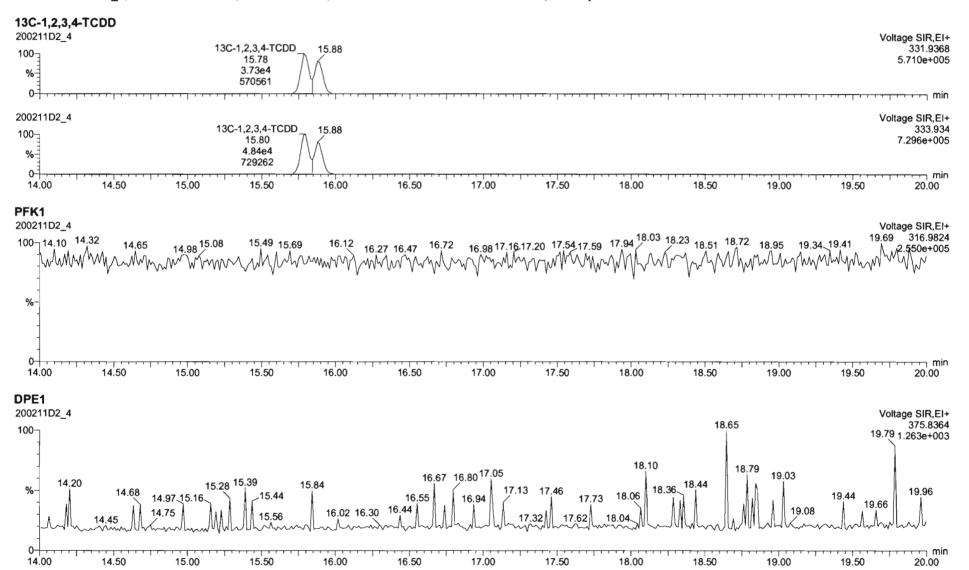
Vista Analytical Laboratory VG-11

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_4, Date: 11-Feb-2020, Time: 21:32:19, ID: ST200211D2-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303



Quantify Sample Report

Vista Analytical Laboratory VG-11

Dataset:

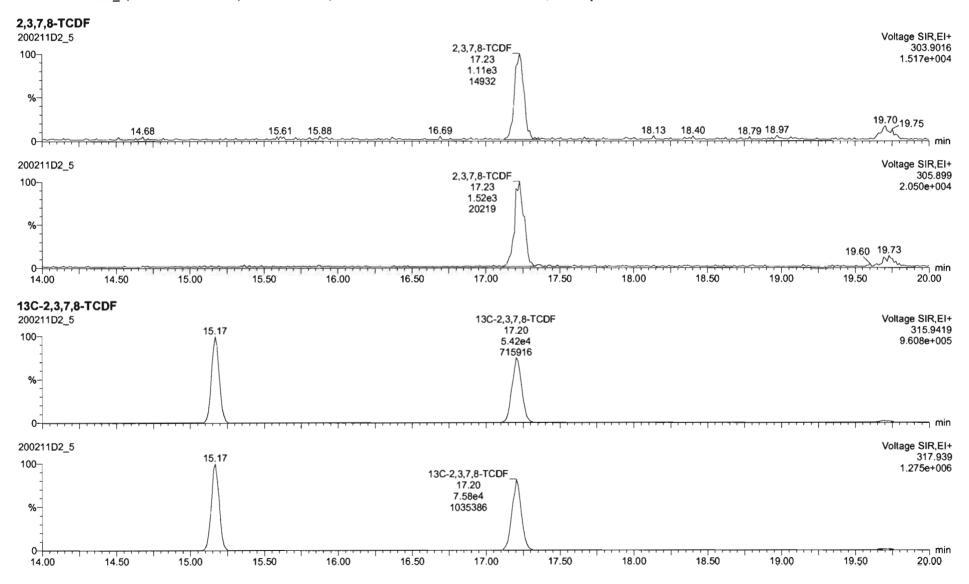
U:\VG7.PRO\Results\200211D2\200211D2 CRV.qld

MassLynx 4.1

Last Altered: Printed:

Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_5, Date: 11-Feb-2020, Time: 22:04:03, ID: ST200211D2-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

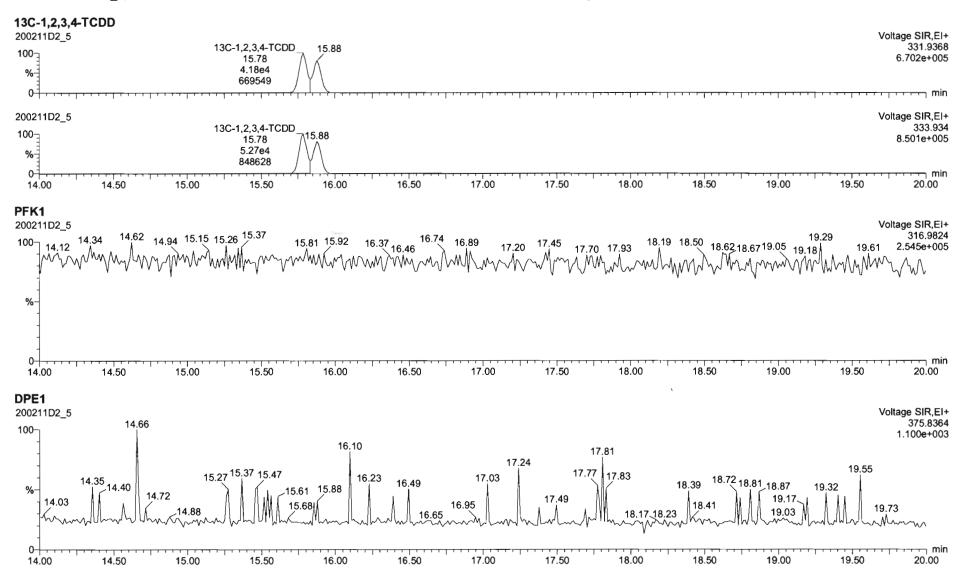


Vista Analytical Laboratory VG-11

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_5, Date: 11-Feb-2020, Time: 22:04:03, ID: ST200211D2-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304



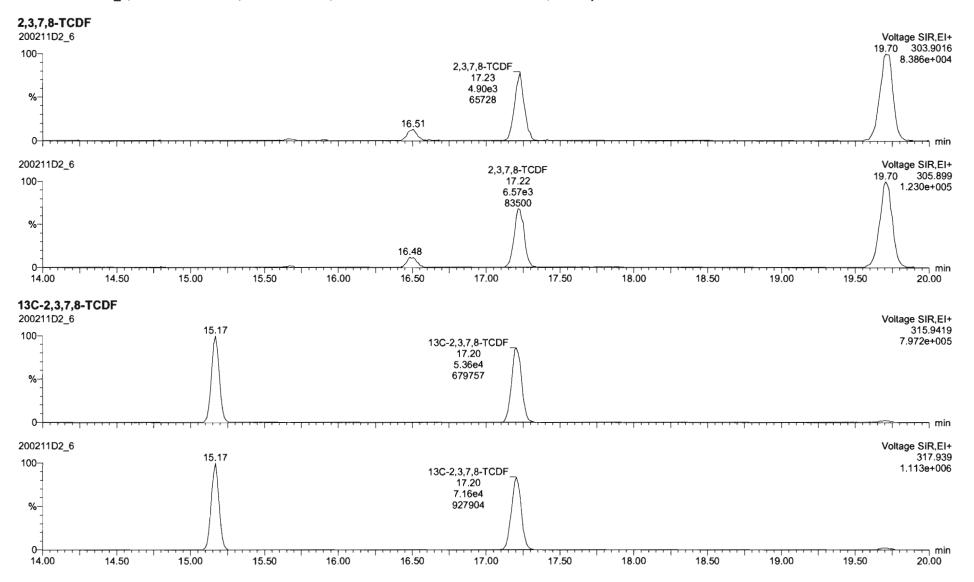
Work Order 1903654 Page 1151 of 1184

Vista Analytical Laboratory VG-11

Dataset: U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2 6, Date: 11-Feb-2020, Time: 22:35:45, ID: ST200211D2-4 1613 CS3 19L2305, Description: 1613 CS3 19L2305



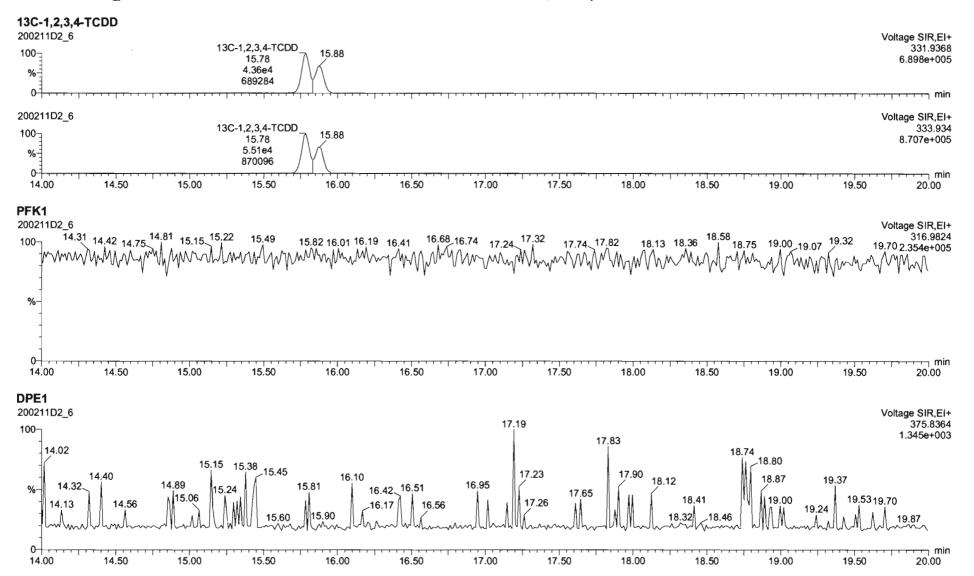
Work Order 1903654

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Printed: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_6, Date: 11-Feb-2020, Time: 22:35:45, ID: ST200211D2-4 1613 CS3 19L2305, Description: 1613 CS3 19L2305



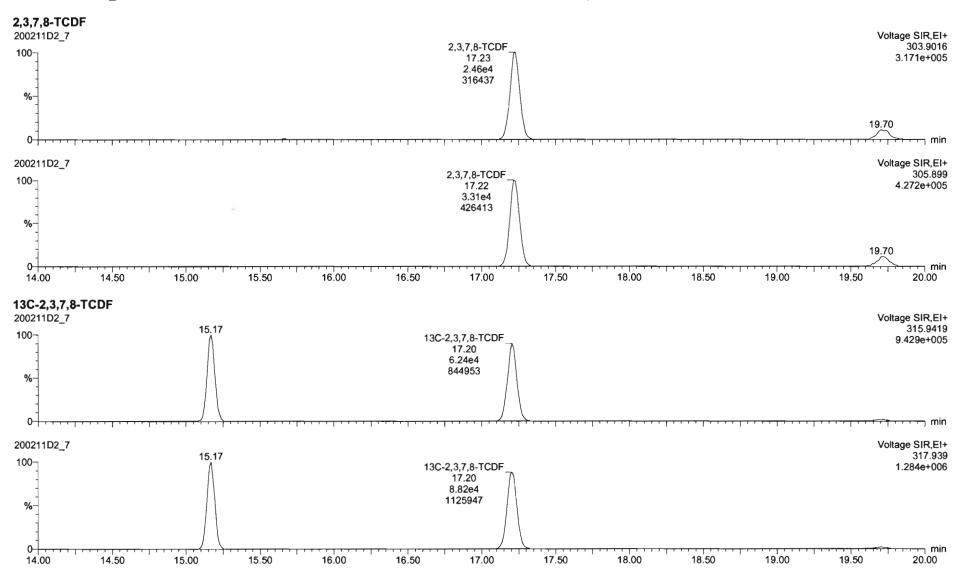
Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Printed:

Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_7, Date: 11-Feb-2020, Time: 23:07:28, ID: ST200211D2-5 1613 CS4 19L2306, Description: 1613 CS4 19L2306



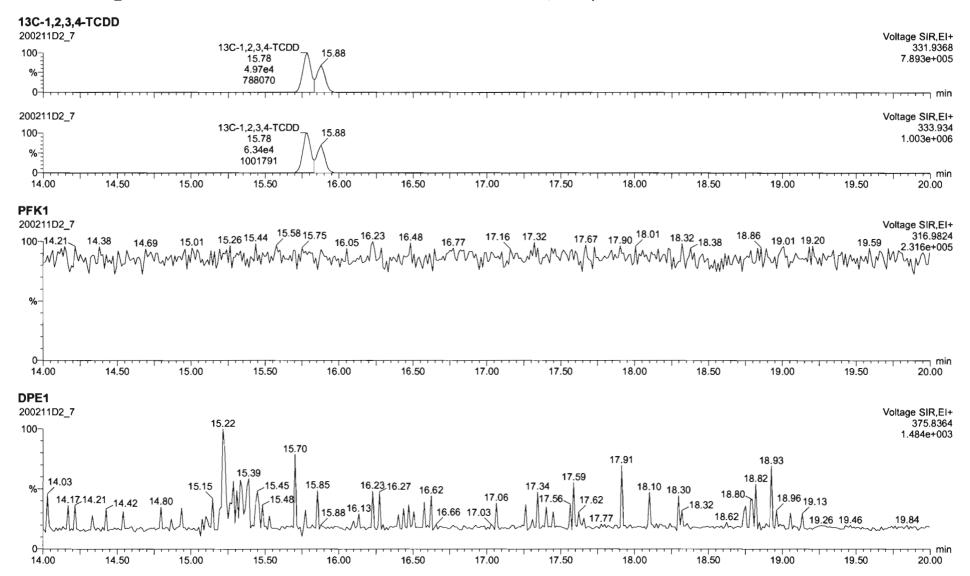
Work Order 1903654

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Printed: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_7, Date: 11-Feb-2020, Time: 23:07:28, ID: ST200211D2-5 1613 CS4 19L2306, Description: 1613 CS4 19L2306



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Vista Analytical Laboratory VG-11

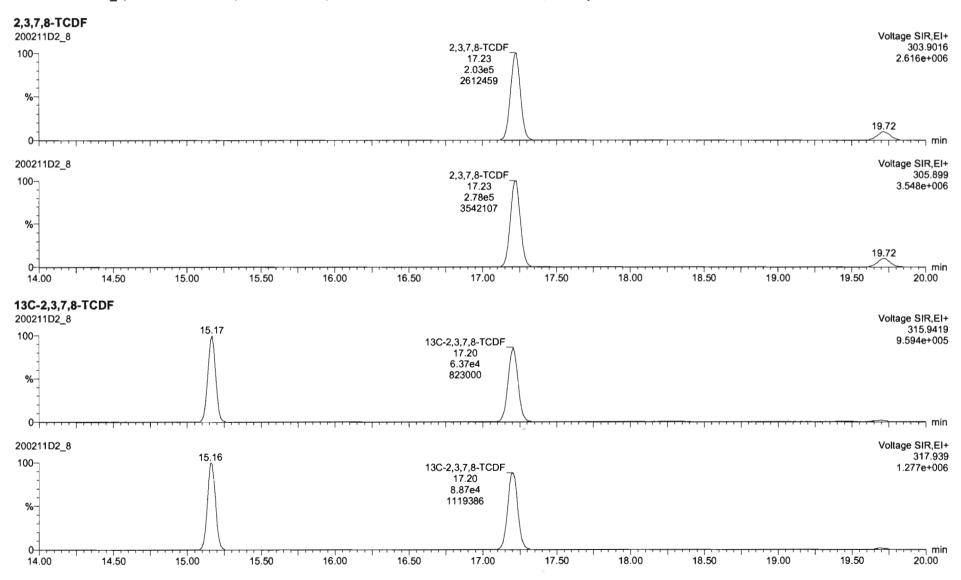
Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_CRV.qld

Last Altered: Printed:

Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2_8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307



Work Order 1903654

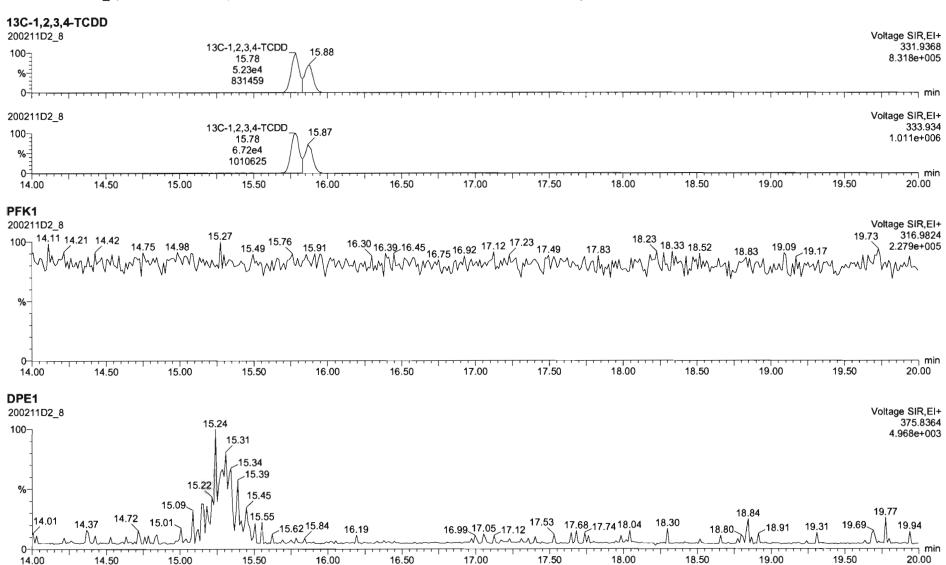
Page 1156 of 1184

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2 CRV.qld

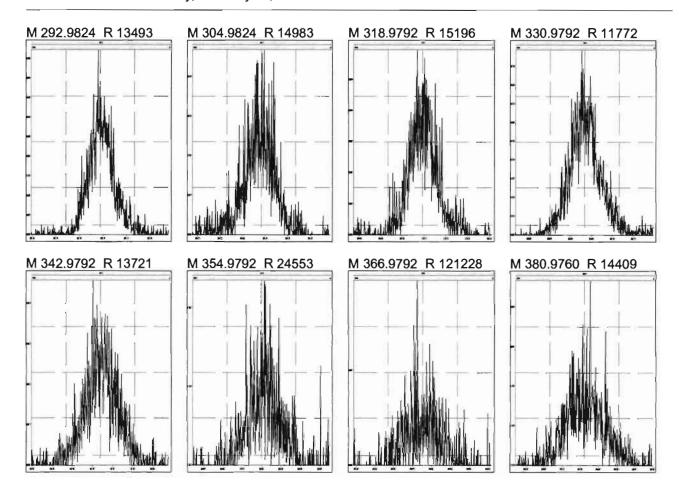
Last Altered: Printed: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2 8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307



Printed:

Wednesday, February 12, 2020 04:26:13 Pacific Standard Time



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Quantify Sample Summary Report

MassLynx 4.1

Page 1 of 1

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_10.qld

Last Altered:

Wednesday, February 12, 2020 10:51:20 Pacific Standard Time

Printed:

Wednesday, February 12, 2020 10:52:52 Pacific Standard Time

DB 2/12/20 moya/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24 Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Name: 200211D2_10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

THE REAL PROPERTY.	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	1.29e4	0.77	NO	0.982	1.000	17.22	10.800	108	0.183
2	2 13C-2,3,7,8-TCDF	1.22e5	0.73	NO	1.08	1.000	17.20	92.025	92.0	0.305
3	3 13C-1,2,3,4-TCDF	1.22e5	0.72	NO	1.00	1.000	15.17	100.00	100	0.330
4	4 13C-1,2,3,4-TCDD	8.99e4	0.76	NO	1030	1.000	15.78	87.563	87.6	0.304

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Quantify Sample Report

Vista Analytical Laboratory VG-11

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_10.qld

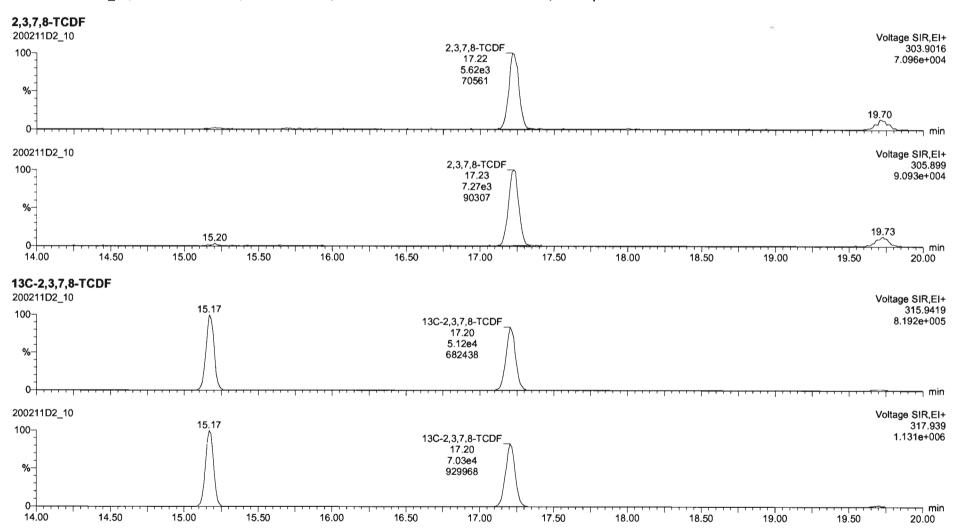
MassLynx 4.1

Last Altered: Printed:

Wednesday, February 12, 2020 10:51:20 Pacific Standard Time Wednesday, February 12, 2020 10:53:15 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24 Calibration: U:\VG7.PRO\CurveDB\db-225_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Name: 200211D2 10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308



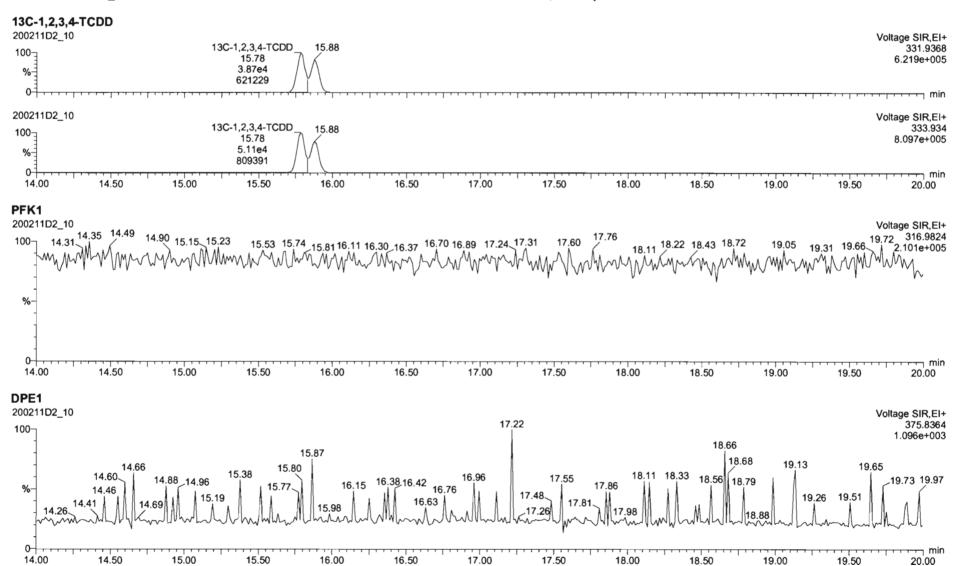
Quantify Sample Report

Dataset:

U:\VG7.PRO\Results\200211D2\200211D2_10.qld

Last Altered: Printed: Wednesday, February 12, 2020 10:51:20 Pacific Standard Time Wednesday, February 12, 2020 10:53:15 Pacific Standard Time

Name: 200211D2_10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308



Quantify Compound Summary Report Vista Analytical Laboratory

MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

Printed:

U:\VG12.PRO\Results\200309R2\200309R2-CRV.qld

Last Altered:

Tuesday, March 10, 2020 8:18:28 AM Pacific Daylight Time Tuesday, March 10, 2020 8:19:39 AM Pacific Daylight Time

GRB 03/10/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Compound name: 2,3,7,8-TCDF Response Factor: 0.820787

RRF SD: 0.107593, Relative SD: 13.1085

Response type: Internal Std (Ref 2), Area * (IS Conc. / IS Area)

Curve type: RF

287E	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200309R2_2	0.250	0.77	NO	16.58	1.001	4 20e3	1.63e6	0.314	25.4	1.03	MM
2	200309R2_3	0.500	0.73	NO	16.59	1.001	5.46e3	1 37e6	0.487	-2.7	0.799	MM
3	200309R2_4	2.00	0.74	NO	16.56	1.001	2.05e4	1.37e6	1.81	-9.3	0.745	bb
4	200309R2_5	10 0	0.75	NO	16.56	1.001	1.02e5	1.39e6	8.95	-10 5	0.735	bb
5	200309R2_6	40.0	0.74	NO	16.56	1.001	5.13e5	1.61e6	38.8	-3.0	0.796	bb
6	200309R2_7	300	0.76	NO	16.56	1.001	4.09e6	1.66e6	300	-0.0	0.821	bb

Compound name: 13C-2,3,7,8-TCDF

Response Factor: 1.10088

RRF SD: 0.097324, Relative SD: 8.84057

Response type: Internal Std (Ref 3), Area * (IS Conc. / IS Area)

Curve type: RF

19.00	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200309R2_2	100	0.78	NO	16.56	1.147	1 63e6	1.30e6	114	13.7	1.25	bb
2	200309R2_3	100	0.77	NO	16 56	1.147	1.37e6	1.38e6	89.9	-10.1	0.990	bb
3	200309R2_4	100	0.77	NO	16 54	1.146	1.37e6	1.38e6	90 5	-9.5	0 996	bb
4	200309R2_5	100	0.77	NO	16.54	1.147	1.39e6	1.25e6	102	1.6	1.12	bb
5	200309R2_6	100	0.77	NO	16.54	1.146	1.61e6	1.43e6	102	2.2	1.13	bb
6	200309R2_7	100	0.77	NO	16.54	1.146	1.66e6	1.48e6	102	2.0	1.12	bb

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Dataset: U:\VG12.PRO\Results\200309R2\200309R2-CRV.qld

Last Altered: Tuesday, March 10, 2020 8:18:28 AM Pacific Daylight Time Printed: Tuesday, March 10, 2020 8:19:39 AM Pacific Daylight Time

Compound name: 13C-1,2,3,4-TCDF

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 3), Area * (IS Conc. / IS Area)

Curve type: RF

41 9	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200309R2_2	100	0.79	NO	14.45	1 000	1.30e6	1.30e6	100	0 0	1.00	bb
2	200309R2_3	100	0.79	NO	14.45	1.000	1 38e6	1.38e6	100	0.0	1.00	bb
3	200309R2_4	100	0.79	NO	14.44	1.000	1.38e6	1.38e6	100	0.0	1.00	bb
4	200309R2_5	100	0.78	NO	14.42	1.000	1.25e6	1.25e6	100	0.0	1.00	bb
5	200309R2_6	100	0 79	NO	14.44	1.000	1.43e6	1 43e6	100	0.0	1.00	bb
6	200309R2_7	100	0.78	NO	14.44	1.000	1 48e6	1.48e6	100	0.0	1.00	bb

Compound name: 13C-1,2,3,4-TCDD

Response Factor: 11994.1

RRF SD: 1070.13, Relative SD: 8.92214 Response type: External Std, Area

Curve type: RF

85543	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200309R2_2	100	0.77	NO	15.08	0.000	1.28e6		107	6.6	12800	bd
2	200309R2_3	100	0.78	NO	15.06	0.000	1.08e6		90.4	-9.6	10800	bd
3	200309R2_4	100	0.77	NO	15.05	0.000	1.11e6		92.2	-7 8	11100	bd
4	200309R2_5	100	0 75	NO	15.05	0.000	1.12e6		93.6	-6.4	11200	bd
5	200309R2_6	100	0.77	NO	15.05	0.000	1.28e6		107	6.5	12800	bd
6	200309R2_7	100	0.78	NO	15.05	0 000	1.33e6		111	10.8	13300	bd

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Page 1 of 1

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 8:04:02 AM Pacific Daylight Time Tuesday, March 10, 2020 8:04:32 AM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49 Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 07:53:03

Compound name: 2,3,7,8-TCDF

14.5	Name	ID	Acq.Date	Acq.Time
1	200309R2_1	CP200309R2_1 225 CPSM	09-Mar-20	17:55:29
2	200309R2_2	ST200309R2_1 1613 CS0 19L2302	09-Mar-20	18:25:43
3	200309R2_3	ST200309R2_2 1613 CS1 19L2303	09-Mar-20	18:56:05
4	200309R2_4	ST200309R2_3 1613 CS2 19L2304	09-Mar-20	19:26:33
5	200309R2_5	ST200309R2_4 1613 CS3 19L2305	09-Mar-20	19:57:01
6	200309R2_6	ST200309R2_5 1613 CS4 19L2306	09-Mar-20	20:27:25
7	200309R2_7	ST200309R2_6 1613 CS5 19L2307	09-Mar-20	20:57:48
8	200309R2_8	SOLVENT BLANK	09-Mar-20	21:28:11
9	200309R2_9	SS200309R2_1 1613 SSS 19L2308	09-Mar-20	21:58:38
10	200309R2_10	SOLVENT BLANK	09-Mar-20	22:29:05
11	200309R2_11	1904012-10RE2 PX-S23-SB48-0203 10.92	09-Mar-20	22:59:38
12	200309R2_12	2000301-01RE2 PDI-077SC-A-02-03-191014	09-Mar-20	23:29:57
13	200309R2_13	B0B0291-DUP1 Duplicate 18.51	10-Mar-20	00:00:21
14	200309R2_14	2000407-01RE1 PDI-084SC-A-05-06-191002	10-Mar-20	00:30:51
15	200309R2_15	2000407-02RE1 PDI-084SC-A-06-07-191002	10-Mar-20	01:01:18
16	200309R2_16	2000407-03RE1 PDI-084SC-A-07-08-191002	10-Mar-20	01:31:45
17	200309R2_17	2000407-04RE1 PDI-084SC-A-08-09-191002	10-Mar-20	02:02:13
18	200309R2_18	2000407-05RE1 PDI-084SC-A-09-10-191002	10-Mar-20	02:32:40
19	200309R2_19	2000407-06RE1 PDI-084SC-A-10-11-191002	10-Mar-20	03:03:07
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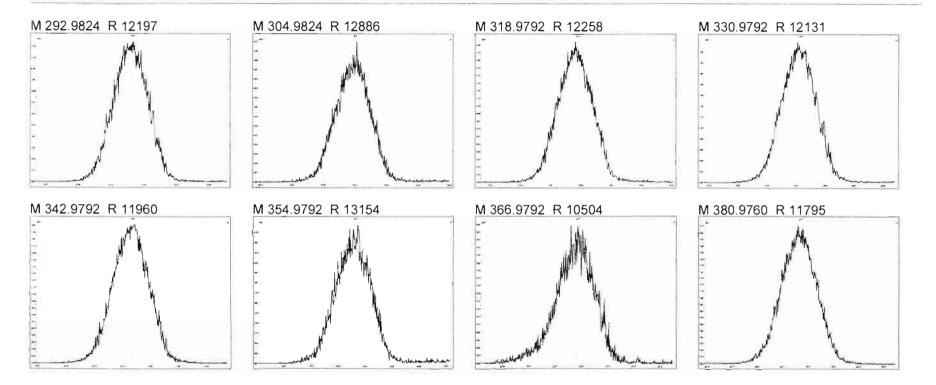
Work Order 1903654 Page 1164 of 1184

File:

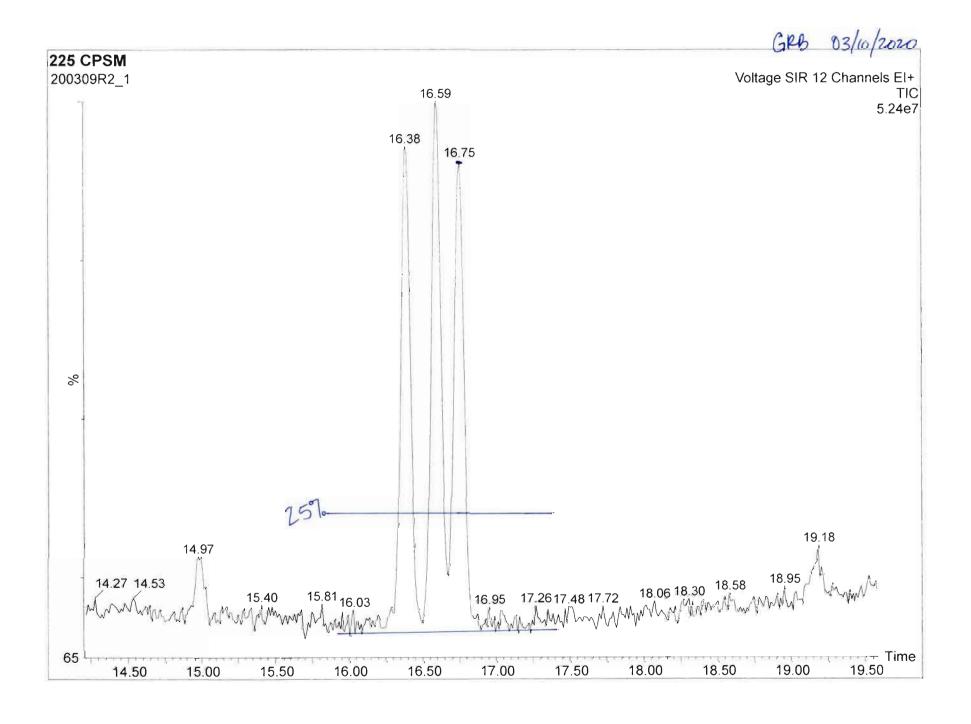
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Printed:

Monday, March 09, 2020 17:53:48 Pacific Daylight Time



Work Order 1903654 Page 1165 of 1184



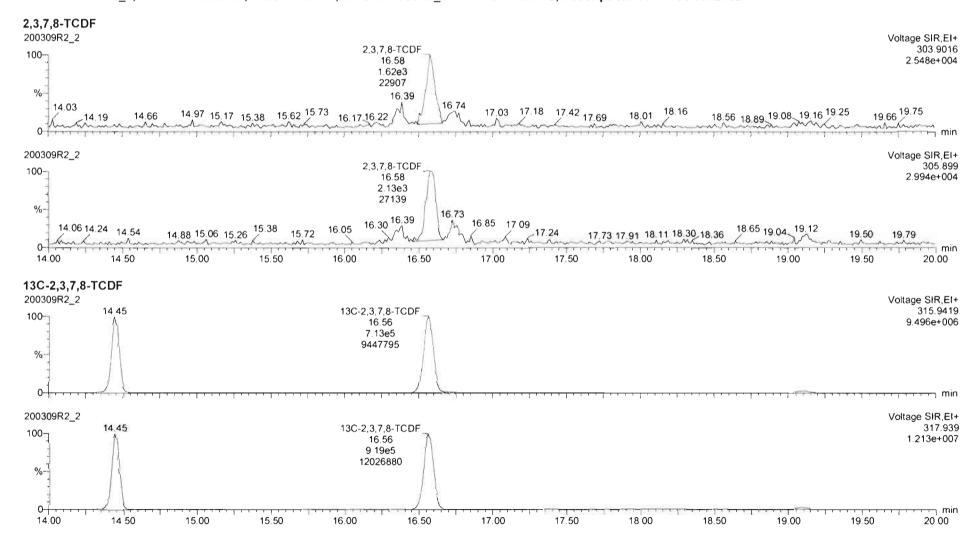
Work Order 1903654 Page 1166 of 1184

Dataset: Untitled

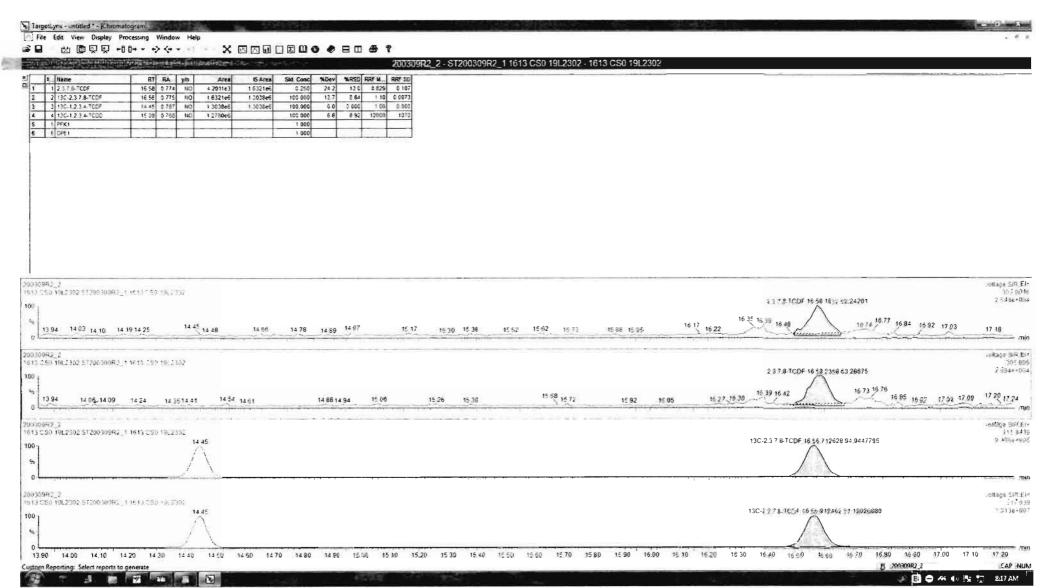
Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\tcdf.mdb 31 Jan 2020 08:42:36 Calibration: U:\VG12.PRO\CurveDB\db5_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200309R2 2, Date: 09-Mar-2020, Time: 18:25:43, ID: ST200309R2 1 1613 CS0 19L2302, Description: 1613 CS0 19L2302



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Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

Dataset:

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Last Altered: Printed:

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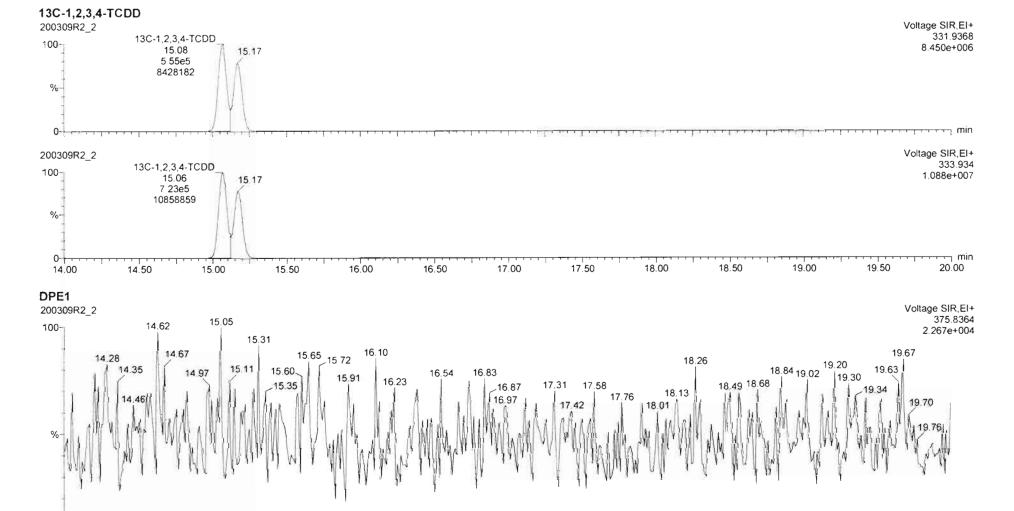
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Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2_2, Date: 09-Mar-2020, Time: 18:25:43, ID: ST200309R2_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302



Work Order 1903654 Page 1169 of 1184

17.00

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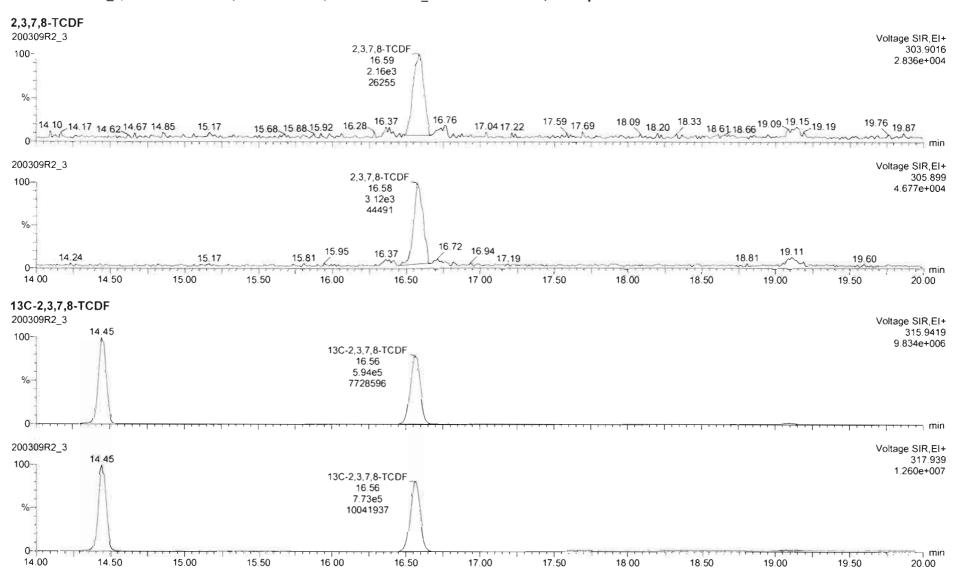
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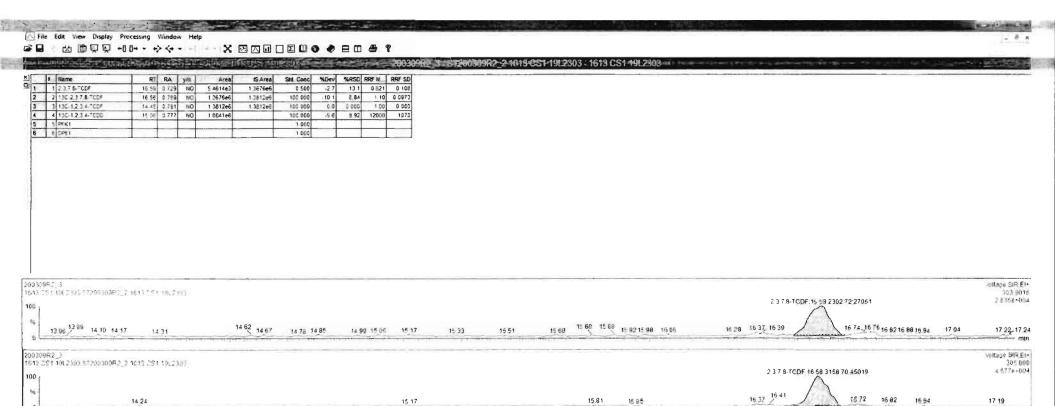
Last Altered: Tuesday, Ma Printed: Tuesday, Ma

Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2_3, Date: 09-Mar-2020, Time: 18:56:05, ID: ST200309R2_2 1613 CS1 19L2303, Description: 1613 CS1 19L2303



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1612 CS1 19L2303 S1200309R2 2 1613 CS1 19L2303

1613 CS1 19L2303 E1200309R2 2 1613 CS1 10L2303

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Custom Reporting: Select reports to generate

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ff 200300R2 3

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Work Order 1903654 Page 1171 of 1184

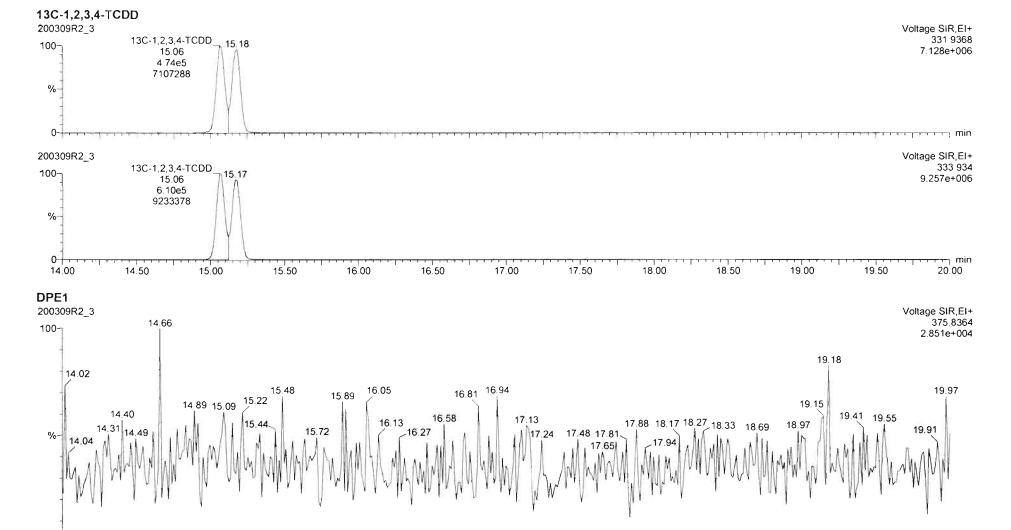
Dataset:

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Last Altered: Printed:

Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2_3, Date: 09-Mar-2020, Time: 18:56:05, ID: ST200309R2_2 1613 CS1 19L2303, Description: 1613 CS1 19L2303



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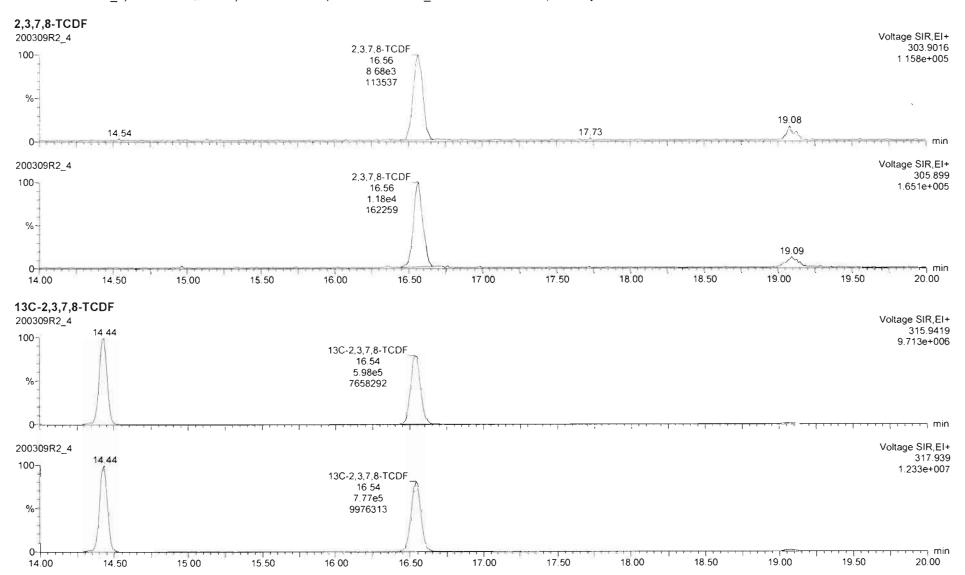
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Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2 4, Date: 09-Mar-2020, Time: 19:26:33, ID: ST200309R2_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304



Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

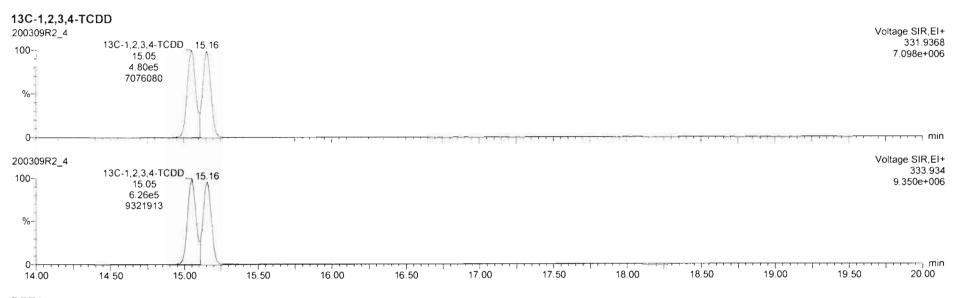
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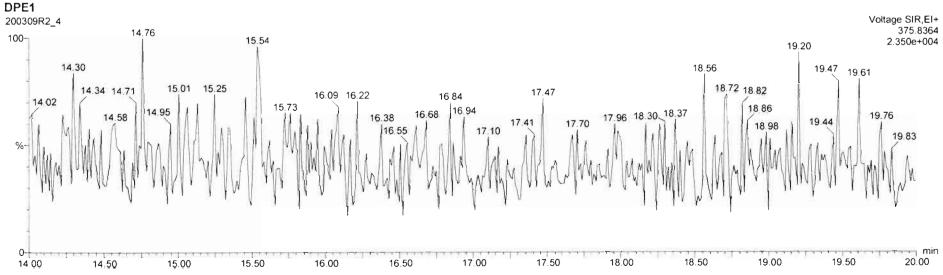
Untitled

Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Last Altered: Printed:

Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2 4, Date: 09-Mar-2020, Time: 19:26:33, ID: ST200309R2 3 1613 CS2 19L2304, Description: 1613 CS2 19L2304





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Quantify Sample Report MassLynx 4.1 SCN815

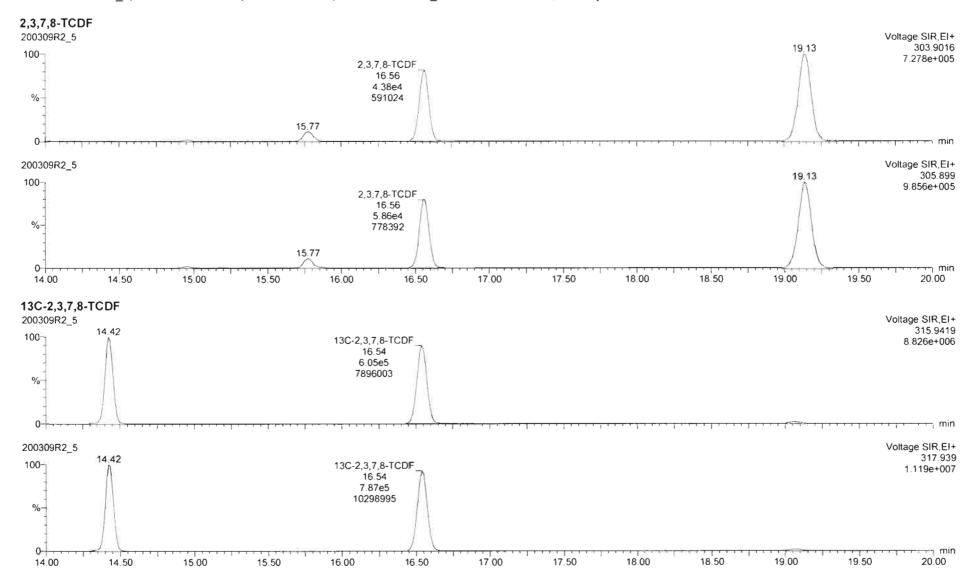
Vista Analytical Laboratory VG-11

Dataset:

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Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2_5, Date: 09-Mar-2020, Time: 19:57:01, ID: ST200309R2_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

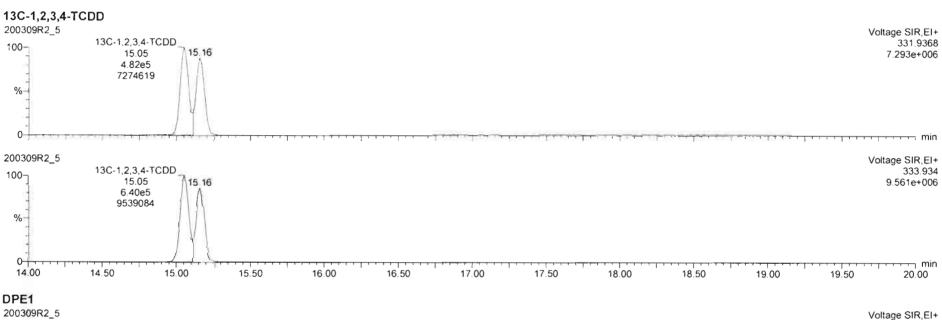


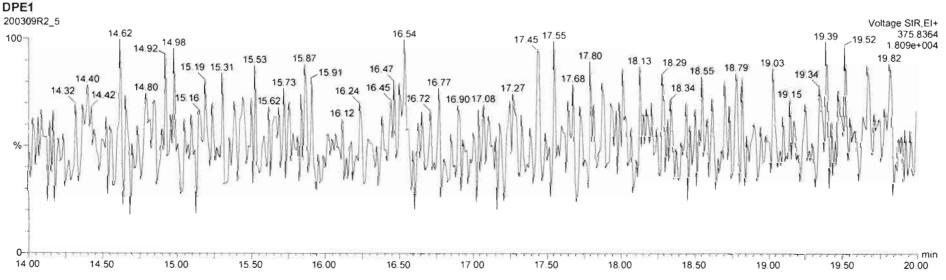
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Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

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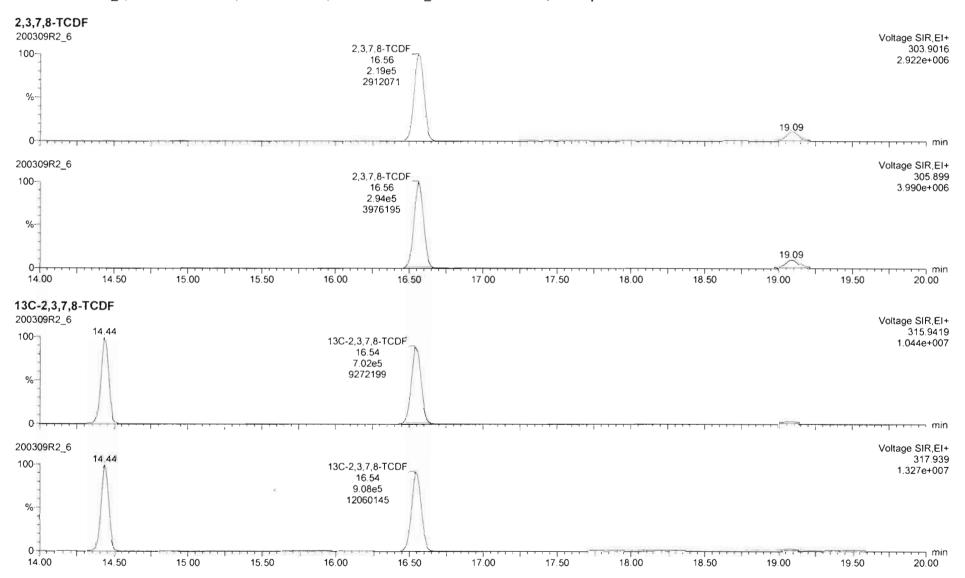
Work Order 1903654 Page 1176 of 1184

Dataset:

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Last Altered: Printed: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2_6, Date: 09-Mar-2020, Time: 20:27:25, ID: ST200309R2_5 1613 CS4 19L2306, Description: 1613 CS4 19L2306



Work Order 1903654

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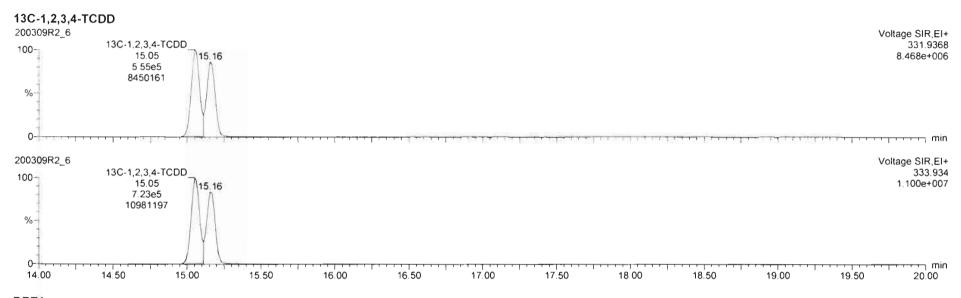
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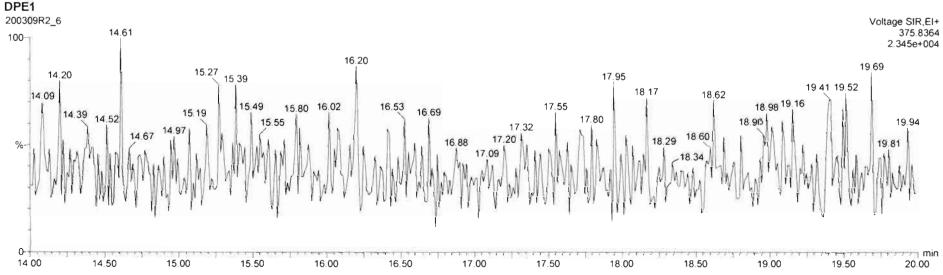
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Last Altered: Printed:

Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2_6, Date: 09-Mar-2020, Time: 20:27:25, ID: ST200309R2_5 1613 CS4 19L2306, Description: 1613 CS4 19L2306





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Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

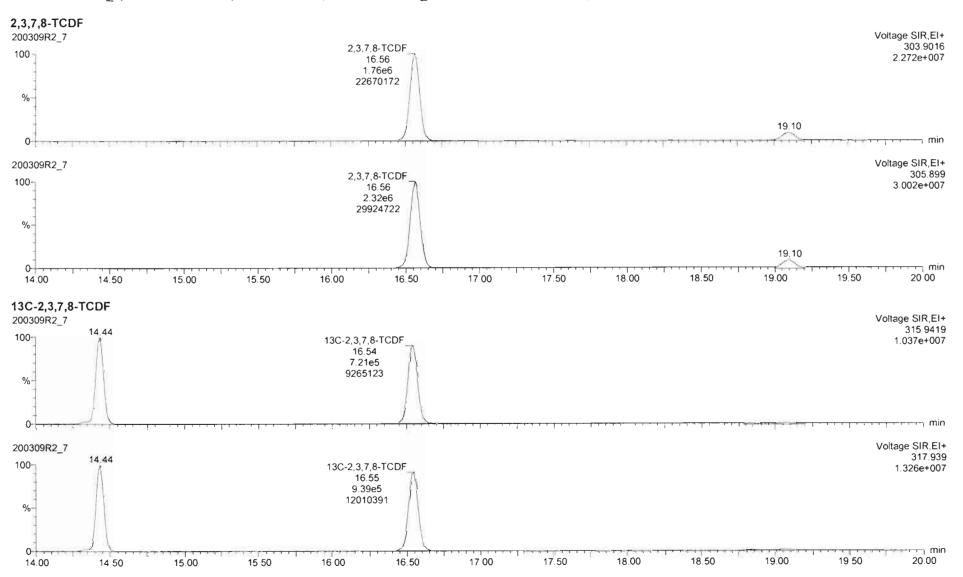
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Last Altered: Printed:

Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

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Work Order 1903654

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Vista Analytical Laboratory VG-11

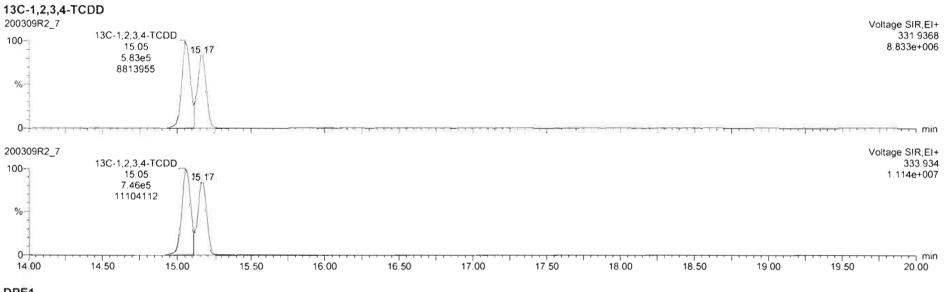
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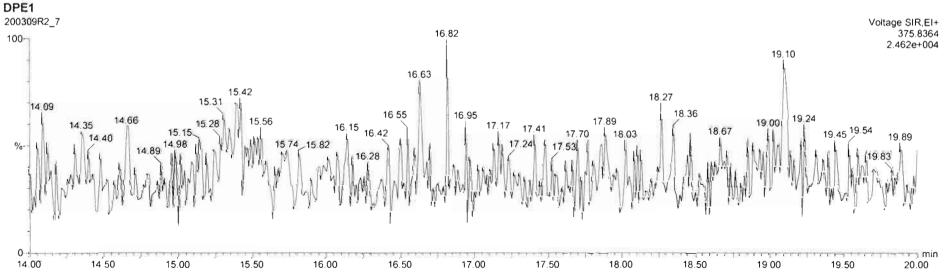
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Last Altered: Printed:

Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

Name: 200309R2_7, Date: 09-Mar-2020, Time: 20:57:48, ID: ST200309R2_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307



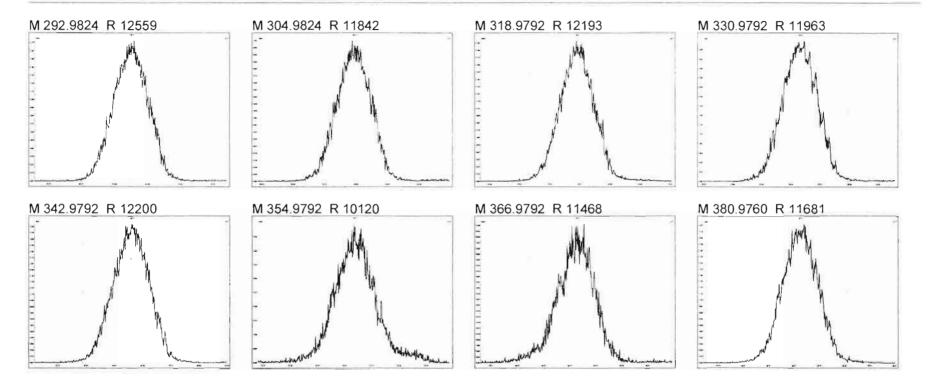


File:

Experiment: tcdf_db225.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Tuesday, March 10, 2020 07:42:24 Pacific Daylight Time



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Quantify Sample Summary Report

MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\200309R2\200309R2-9.qld

Last Altered: Printed:

Tuesday, March 10, 2020 8:22:49 AM Pacific Daylight Time Tuesday, March 10, 2020 8:25:09 AM Pacific Daylight Time

GRB 63/10/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49

Calibration: U:\VG12.PRO\CurveDB\db225_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200309R2 9, Date: 09-Mar-2020, Time: 21:58:38, ID: SS200309R2 1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

E ROS	# Name	Resp	RA	n/y	RRF M	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	1.09e5	0.73	NO	0.821	1.000	16.56	10.163	102	0.0715
2	2 13C-2,3,7,8-TCDF	1.30e6	0.77	NO	1.10	1.000	16.54	93.316	93.3	0.191
3	3 13C-1,2,3,4-TCDF	1.27e6	0.79	NO	1.00	1.000	14.44	100.00	100	0.210

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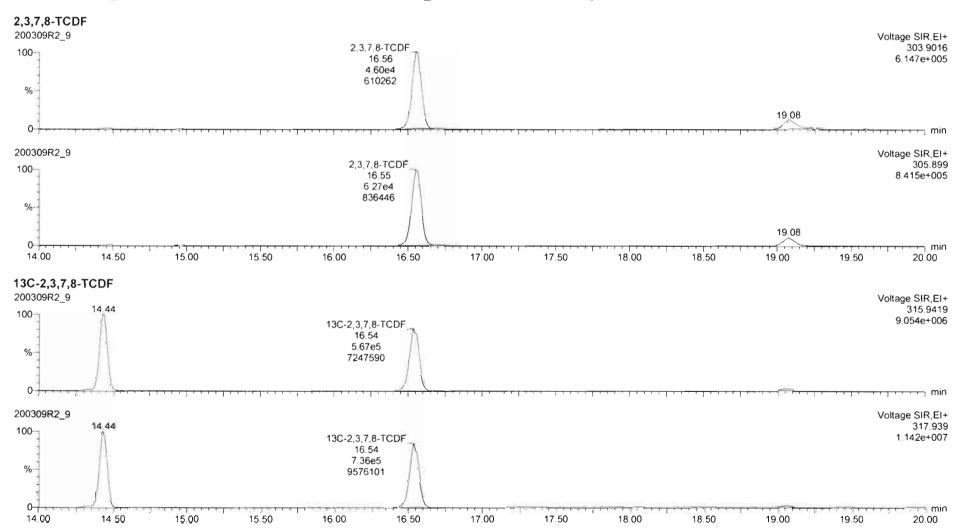
Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 8:22:49 AM Pacific Daylight Time Printed: Tuesday, March 10, 2020 8:22:54 AM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49

Calibration: U:\VG12.PRO\CurveDB\db225 1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200309R2_9, Date: 09-Mar-2020, Time: 21:58:38, ID: SS200309R2_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308



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Quantify Sample Report MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

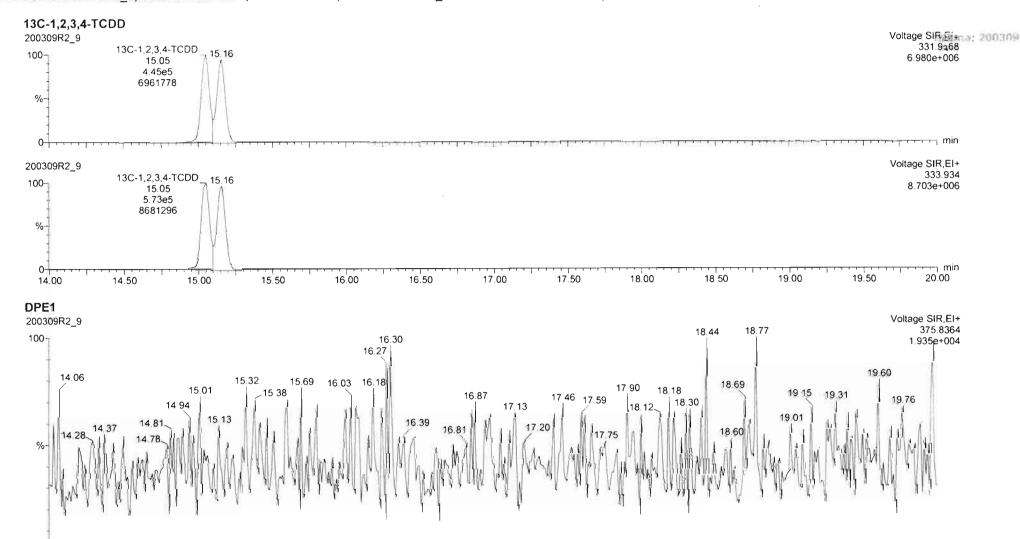
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Last Altered: Printed:

Tuesday, March 10, 2020 8:22:49 AM Pacific Daylight Time Tuesday, March 10, 2020 8:22:54 AM Pacific Daylight Time

Name: 200309R2_9, Date: 09-Mar-2020, Time: 21:58:38, ID: SS200309R2_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308



17.00

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